

# University of Louisiana at Lafayette

## Detailed Assessment Report 2015-2016 Industrial Technology BS

As of: 11/21/2016 09:06 AM CENTRAL

(Includes those Action Plans with Budget Amounts marked *One-Time, Recurring, No Request.*)

### Mission / Purpose

The mission of the Department of Industrial Technology is to prepare management-oriented technical professionals for employment in industry, business, government and education.

Program Goals 1. Maintain state-of-the-art classrooms and laboratories. 2. Increase the effectiveness of academic advising. 3. Build and enhance the working partnerships with industry throughout Louisiana that employ, or could employ, program graduates. 4. Improve ITEC student diversity. 5. Implement a Ph.D. degree program. 6. Maintain curriculum to reflect current industrial trends and requirements.

### Student Learning Outcomes/Objectives, with Any Associations and Related Measures, Targets, Findings, and Action Plans

#### **SLO 1: Understanding of Graphic Communication**

ITEC students will be able to demonstrate an understanding of graphics communications to solve industrial problems.

#### **Strategic Plan Associations**

##### University of Louisiana at Lafayette

2.1.4 Students KPI 4: Improve student success through engagement in high impact practices.

#### Related Measures

#### **M 2: Final Graphics Project - ITEC 270**

A decision making rubric validated for reliability & validity by the university assessment office.

Source of Evidence: Project, either individual or group

#### **Target:**

Using a decision-making rubric, at least 80% of student samples in ITEC 270 must achieve level 2 or better performance rating on the final CAD project.

#### **Finding (2015-2016) - Target: Met**

100% of 41 students enrolled in the spring 2015 classes in ITEC 270 achieved a level 2 or better performance rating on the final CAD project.

#### **Related Action Plans (by Established cycle, then alpha):**

#### **Maintain at Least 85% in Level 2 or Better on CAD Final Projects**

The ITEC department will increase the minimum number of students in ITEC 270 achieving a level 2 or better performance rating on the final CAD project to 85%.

**Established in Cycle:** 2014-2015

**Implementation Status:** In-Progress

**Priority:** High

**Relationships (Measure | Outcome/Objective):**

**Measure:** Final Graphics Project - ITEC 270 |  
**Outcome/Objective:** Understanding of Graphic Communication

**Implementation Description:** The department will monitor this target for another cycle. If the results continue to be at 100%, the department will consider retiring this target.

**SLO 2: Understanding of Electrical Problems**

ITEC students will be able to demonstrate their understanding of electricity and electronics to solve industrial problems.

Related Measures

**M 4: Laboratory Practical - ITEC 322**

Theoretical problem set and hands-on laboratory practical.

Source of Evidence: Academic direct measure of learning - other

**Target:**

75% of students enrolled in ITEC 322 will demonstrate the ability to successfully complete a theoretical problem set and a hands-on laboratory practical evaluated on a pass/fail basis.

Finding (2015-2016) - Target: Met

82% of 104 students enrolled in the fall 2015 and spring 2016 classes in ITEC 322 successfully completed a theoretical problem set and hands-on laboratory practical.

Related Action Plans (by Established cycle, then alpha):

**Maintain at a 75% success rate on a Problem and Hands-on laboratory practical in ITEC 322**

The ITEC department will maintain the current level of a 75% success rate in the students ability to successfully complete a theoretical problem set and a hands-on laboratory practical evaluated on a pass/fail basis. New math prerequisites are planned to be implemented with the next catalog cycle. The same target will be maintained until the new course prerequisites become effective in 2016.

**Established in Cycle:** 2013-2014

**Implementation Status:** In-Progress

**Priority:** High

**Relationships (Measure | Outcome/Objective):**

**Measure:** Laboratory Practical - ITEC 322 |

**Outcome/Objective:** Understanding of Electrical Problems

**M 18: Employer Electrical Survey**

Locally developed employer survey conducted on 5 year cycle.

Source of Evidence: Employer survey, incl. perceptions of the program

**Target:**

70% of respondents to employer survey will indicate satisfaction with an ITEC graduate's technical skills in electricity and electronics to solve industrial problems.

Finding (2015-2016) - Target: Not Reported This Cycle

This measure is based on data from a Employer Survey conducted every five years. The most recent survey was completed in the 2012 and the data shows that 75% of the responses indicated that an ITEC graduates' knowledge of

electronics for problem solving and daily work activities was average or better. The next Employer Survey will be conducted in the 2016-2017 Academic Year.

**Related Action Plans (by Established cycle, then alpha):**

**Maintain a 70% Success Rate in Employers Who are Satisfied with ITEC Graduates' Technical Skills in Electricity and Electronics.**

The ITEC department will maintain a 70% Success Rate in Employers who are satisfied with ITEC graduates' technical skills in electricity and electronics to solve industrial problems. The most recent employer survey conducted in 2012 has 12 respondents. The ITEC department will set a goal to increase the respondents from 12 to 20 in the 2017 cycle.

**Established in Cycle:** 2013-2014

**Implementation Status:** In-Progress

**Priority:** High

**Relationships (Measure | Outcome/Objective):**

**Measure:** Employer Electrical Survey | **Outcome/Objective:** Understanding of Electrical Problems

**Create On-line Survey for Employer for 2017 Cycle**

A new online survey will be created for the next cycle on Employer surveys. This survey will be accessible through the ITEC Department's website making the survey easier to complete.

**Established in Cycle:** 2014-2015

**Implementation Status:** In-Progress

**Priority:** High

**Relationships (Measure | Outcome/Objective):**

**Measure:** Employer Electrical Survey | **Outcome/Objective:** Understanding of Electrical Problems

**Measure:** Employer IT Survey | **Outcome/Objective:** Information Technology

**Measure:** Employer Management Survey |

**Outcome/Objective:** Understand Management Concepts

**Measure:** Employer Safety Survey | **Outcome/Objective:** Understanding of Safety

**Implementation Description:** The online survey will be created and finalized by January 2017 using Drupal within the ITEC Website.

**SLO 3: Understanding of Safety**

ITEC students will be able to demonstrate their understanding of safety in industrial applications.

**Related Measures**

**M 1: Embedded Exam Questions - ITEC 268**

Two embedded questions related to retained knowledge of basic industrial safety concepts incidence rate and severity rate will be incorporated into exams.

Source of Evidence: Academic direct measure of learning - other

**Target:**

In ITEC 268, 80% of students enrolled will correctly answer two general equations related to retained knowledge of basic industrial safety concepts in incidence rate and severity rate.

**Finding (2015-2016) - Target: Not Met**

62 students enrolled in ITEC 462 in spring 2016 responded to two general equations used to calculate incidence rate and severity rate. For incidence rate,

65% of the students provided a correct response. For severity rate, 52% of the students provided correct responses.

**Related Action Plans (by Established cycle, then alpha):**

**Increase the percentage of students understanding of basic Industrial Safety**

The ITEC department will review data and incorporate some aspects of safety by integrating into other areas, giving students a better understanding and practical applications for incidence rates and severity rates. Also, an emphasis will be placed on incidence rates and severity rates in ITEC 268 in an effort to increase the percentage of students understanding of basic Industrial Safety. Our goal is to meet or exceed the 80% by Spring 2016.

**Established in Cycle:** 2013-2014

**Implementation Status:** Finished

**Priority:** High

**Relationships (Measure | Outcome/Objective):**

**Measure:** Embedded Exam Questions - ITEC 268 |

**Outcome/Objective:** Understanding of Safety

**Projected Completion Date:** 05/2016

**Increase the Percent of Students able to Calculate Incident and Severity Rates**

The ITEC department will increase the percent of students taking ITEC 268 who are successfully able to calculate incident and severity rates in an effort to have a better understanding of safety in general.

**Established in Cycle:** 2015-2016

**Implementation Status:** In-Progress

**Priority:** High

**Relationships (Measure | Outcome/Objective):**

**Measure:** Embedded Exam Questions - ITEC 268 |

**Outcome/Objective:** Understanding of Safety

**Implementation Description:** In reviewing the data, it is difficult to discern, with the data we have, why we have not been successful in achieving this goal. There are several reasons which include the following. Students who take ITEC 268 at the CC level may not be exposed to incident and severity rates, the students in this CY may have taken 268 prior to the change in emphasis or the retention of information from Freshman year to Graduating Senior may also play a role in outcome. Therefore, data from 268 will be used.

**M 19: Employer Safety Survey**

Locally developed employer survey conducted on 5 year cycle.

Source of Evidence: Employer survey, incl. perceptions of the program

**Target:**

70% of respondents to an employer survey will indicate satisfaction with an ITEC graduate's knowledge of safety.

**Finding (2015-2016) - Target: Not Reported This Cycle**

This measure is based on data from a Employer Survey conducted every five years. The most recent survey was completed in the 2012 and the data shows that 92% of the employers indicated that a ITEC graduates' had excellent or above average knowledge in the use of standard safety principles in daily work activities. The next Employer Survey will be conducted during the 2016-2017 Academic year.

**Related Action Plans (by Established cycle, then alpha):**

### **Maintain a 70% Success Rate in Employers Who are Satisfied with ITEC Graduates' Knowledge of Safety.**

The ITEC department will maintain a 70% Success Rate in Employers who are satisfied with ITEC graduates' knowledge in safety. The most recent employer survey conducted in 2012 has 12 respondents. The ITEC department will set a goal to increase the respondents from 12 to 20 in the 2017 cycle.

**Established in Cycle:** 2013-2014

**Implementation Status:** In-Progress

**Priority:** High

**Relationships (Measure | Outcome/Objective):**

**Measure:** Employer Safety Survey | **Outcome/Objective:** Understanding of Safety

### **Create On-line Survey for Employer for 2017 Cycle**

A new online survey will be created for the next cycle on Employer surveys. This survey will be accessible through the ITEC Department's website making the survey easier to complete.

**Established in Cycle:** 2014-2015

**Implementation Status:** In-Progress

**Priority:** High

**Relationships (Measure | Outcome/Objective):**

**Measure:** Employer Electrical Survey | **Outcome/Objective:** Understanding of Electrical Problems

**Measure:** Employer IT Survey | **Outcome/Objective:** Information Technology

**Measure:** Employer Management Survey |

**Outcome/Objective:** Understand Management Concepts

**Measure:** Employer Safety Survey | **Outcome/Objective:** Understanding of Safety

**Implementation Description:** The online survey will be created and finalized by January 2017 using Drupal within the ITEC Website.

### **SLO 4: Understand Management Concepts**

ITEC students will understand management concepts of employer relations and industrial supervision.

#### Related Measures

#### **M 8: Final Exam Embedded Scheduling Problem - ITEC 462**

Embedded management scheduling problem.

Number of students assessed = 95

Source of Evidence: Academic direct measure of learning - other

#### **Target:**

In a capstone course (ITEC 462), 80% of students enrolled will successfully complete a management scheduling problem evaluated on a pass/fail basis.

#### Finding (2015-2016) - Target: Not Met

76% of 103 students enrolled in ITEC 462 for fall 2015 and spring 2016 successfully completed an embedded management scheduling problem.

#### Related Action Plans (by Established cycle, then alpha):

**Maintain an 80% Success Rate on a Management Scheduling Problem in ITEC 462**

The ITEC department will maintain an 80% success rate students who successfully complete a management scheduling problem evaluated on a pass/fail basis. In an effort to increase the outcome, additional management scheduling problems will be introduced into the course. Data will be evaluated for three cycles. If the percentage consistently falls above 80%, then the minimum percentage will be increased.

**Established in Cycle:** 2013-2014

**Implementation Status:** In-Progress

**Priority:** High

**Relationships (Measure | Outcome/Objective):**

**Measure:** Final Exam Embedded Scheduling Problem - ITEC 462 | **Outcome/Objective:** Understand Management Concepts

### **Increase the Percentage of Students Success Rate on a Management Scheduling Problem in ITEC 462**

In 2013-2014 the action plan for this objective was to add additional management scheduling problems into the course in an effort to increase our success. We are also looking at the entire year's data to get a better picture of the situation. Data will be evaluated for one more cycle. If we are unsuccessful in meeting this objective, we will reevaluate our course of action, and institute a new plan.

**Established in Cycle:** 2015-2016

**Implementation Status:** In-Progress

**Priority:** High

**Relationships (Measure | Outcome/Objective):**

**Measure:** Final Exam Embedded Scheduling Problem - ITEC 462 | **Outcome/Objective:** Understand Management Concepts

### **M 15: University Graduating Mgmt Survey**

University developed and locally administered graduating senior exit survey.

Source of Evidence: Academic indirect indicator of learning - other

#### **Target:**

70% of ITEC graduating seniors students completing a university developed and locally administered graduate exit survey will indicate satisfactory knowledge of management concepts.

#### **Finding (2015-2016) - Target: Met**

86% of 76 ITEC graduating seniors completing a Fall 2015 or Spring 2016 locally administered university graduate exit survey indicated satisfactory knowledge of management concepts

#### **Connected Documents**

[Graduate Exit Survey FA2015](#)

[Graduate Exit Survey SP2016](#)

#### **Related Action Plans (by Established cycle, then alpha):**

### **Increase the Success Rate in Students Knowledge of Management Concepts to 80%**

The ITEC department will increase it's minimum success rate for ITEC graduating seniors who indicate satisfactory knowledge of management concepts to 80%.

**Established in Cycle:** 2014-2015

**Implementation Status:** In-Progress

**Priority:** High

**Relationships (Measure | Outcome/Objective):**

**Measure:** University Graduating Mgmt Survey |

**Outcome/Objective:** Understand Management Concepts

**M 16: Alumni Management Survey**

Locally developed alumni survey conducted on 5 year cycle.

Source of Evidence: Alumni survey or tracking of alumni achievements

**Target:**

70% of respondents to a 2007 alumni survey will indicate satisfaction with their understanding of basic management concepts.

**Finding (2015-2016) - Target: Not Reported This Cycle**

This data is based on an Alumni Survey that is conducted every 5 years. The last survey was conducted in 2012 and the results showed that 96% of employers that responded to the 2012 employer survey indicated that ITEC graduates had excellent or above average knowledge in the skills, attitudes and professional ethics necessary for success in leadership and management within their company. The next Alumni Survey will be conducted during the 2016-2017 academic year.

**Related Action Plans (by Established cycle, then alpha):**

**Create On-line Survey for Alumni for 2017 Cycle**

A new online survey will be created for the next cycle on Alumni surveys. This survey will be accessible through the ITEC Department's website making the survey easier to complete.

**Established in Cycle:** 2014-2015

**Implementation Status:** In-Progress

**Priority:** High

**Relationships (Measure | Outcome/Objective):**

**Measure:** Alumni IT Survey | **Outcome/Objective:** Information Technology

**Measure:** Alumni Management Survey | **Outcome/Objective:** Understand Management Concepts

**Implementation Description:** The new online survey will be created and finalized by January 2017 using Drupal in the ITEC website.

**M 21: Employer Management Survey**

Locally developed employer survey conducted on 5 year cycle.

Source of Evidence: Employer survey, incl. perceptions of the program

**Target:**

70% of respondents to an employer survey will indicate that they are satisfied with an ITEC graduate's understanding of basic management concepts.

**Finding (2015-2016) - Target: Not Reported This Cycle**

This measure is based on data from a Employer Survey conducted every five years. The most recent survey was completed in the 2012 and the data shows that 92% of the employers indicated that ITEC graduates' had excellent or above average knowledge in the skills and attitudes necessary to be successful in leadership and management positions within their company. The next Employer Survey will be conducted in the 2016-2017 academic year.

**Related Action Plans (by Established cycle, then alpha):**

**Maintain a 70% Success Rate in Employers Who are Satisfied with ITEC Graduates' Understanding of Basic Management Concepts**

The ITEC department will maintain a 70% Success Rate in Employers who are satisfied with ITEC graduates' knowledge and understanding of basic management concepts. The most recent employer survey conducted in 2012 has 12 respondents. The ITEC department will set a goal to increase the respondents from 12 to 20 in the 2017 cycle.

**Established in Cycle:** 2013-2014

**Implementation Status:** In-Progress

**Priority:** High

**Relationships (Measure | Outcome/Objective):**

**Measure:** Employer Management Survey |

**Outcome/Objective:** Understand Management Concepts

### **Create On-line Survey for Employer for 2017 Cycle**

A new online survey will be created for the next cycle on Employer surveys. This survey will be accessible through the ITEC Department's website making the survey easier to complete.

**Established in Cycle:** 2014-2015

**Implementation Status:** In-Progress

**Priority:** High

**Relationships (Measure | Outcome/Objective):**

**Measure:** Employer Electrical Survey | **Outcome/Objective:** Understanding of Electrical Problems

**Measure:** Employer IT Survey | **Outcome/Objective:** Information Technology

**Measure:** Employer Management Survey |

**Outcome/Objective:** Understand Management Concepts

**Measure:** Employer Safety Survey | **Outcome/Objective:** Understanding of Safety

**Implementation Description:** The online survey will be created and finalized by January 2017 using Drupal within the ITEC Website.

### **SLO 5: Written Communication**

Industrial Technology (ITEC) students will communicate effectively using written communication.

#### Related Measures

#### **M 6: Final Layout Project - ITEC 446**

A decision making rubric validated for reliability validity by the university assessment office. Number of students assessed = 66

Source of Evidence: Project, either individual or group

#### **Target:**

At least 80% of students in ITEC 446 must achieve level 2 or better performance rating on the final layout project report.

#### Finding (2015-2016) - Target: Met

97% of 62 students enrolled in ITEC 446 for fall 2015 and spring 2016 successfully completed a final layout project written report.

#### Related Action Plans (by Established cycle, then alpha):

#### **Maintain an 80% Success Rate on Final Layout Project Report in ITEC 446**

The ITEC department will increase the minimum success rate of students achieving a level 2 or better performance rating on the final layout project report from 80 to 85%. Data will be evaluated for three additional cycles.

**Established in Cycle:** 2013-2014

**Implementation Status:** In-Progress

**Priority:** High

**Relationships (Measure | Outcome/Objective):**

**Measure:** Final Layout Project - ITEC 446 |

**Outcome/Objective:** Written Communication

**M 9: Employment Documentation - ITEC 462**

Development of an employment resume with required sections evaluated on a pass/fail basis. Number of students assessed = 95

Source of Evidence: Written assignment(s), usually scored by a rubric

**Target:**

At least 80% of students in ITEC 462 must successfully submit employment documentation evaluated on a pass/fail basis.

**Finding (2015-2016) - Target: Met**

93% of 104 students enrolled in ITEC 462 for fall 2015 and spring 2016 were successful in submitting acceptable employment documentation in their first attempt.

**Related Action Plans (by Established cycle, then alpha):**

**Increase to an 80% Success Rate of Students who Successfully Submit Employment Documentation**

The ITEC department will increase the minimum requirement of students in ITEC 462 who successfully submit employment documentation evaluated on a pass/fail basis to 80%.

**Established in Cycle:** 2014-2015

**Implementation Status:** In-Progress

**Priority:** High

**Relationships (Measure | Outcome/Objective):**

**Measure:** Employment Documentation - ITEC 462 |

**Outcome/Objective:** Written Communication

**M 11: University Graduating Communication Survey**

University developed and locally administered graduating senior exit survey.

Source of Evidence: Academic indirect indicator of learning - other

**Target:**

90% of ITEC graduating seniors students completing a university developed and locally graduate exit survey will indicate that they communicate effectively in written communication.

**Finding (2015-2016) - Target: Met**

91% of 76 ITEC graduating seniors students completing a Fall 2015 and Spring 2016 locally administered university graduate exit survey indicated satisfactory knowledge of written communications.

**Connected Documents**

[Graduate Exit Survey FA2015](#)

[Graduate Exit Survey SP2016](#)

**Related Action Plans (by Established cycle, then alpha):**

**Maintain at least a 90% rating of Graduating Seniors that Indicate that they can Communicate effectively In Writing**

Maintain the percentage of ITEC graduating seniors completing a university developed and locally administered graduate exit survey will indicate that they communicate effectively in written communication at 90%.

**Established in Cycle:** 2014-2015

**Implementation Status:** In-Progress

**Priority:** High

**Relationships (Measure | Outcome/Objective):**

**Measure:** University Graduating Communication Survey |

**Outcome/Objective:** Written Communication

**SLO 6: Oral Communication**

Industrial Technology (ITEC) students will communicate effectively using oral communication.

**Related Measures**

**M 5: Robotic Presentation - ITEC 424**

A decision making rubric validated for reliability validity by the university assessment office. Number of students assessed = 13

Source of Evidence: Project, either individual or group

**Target:**

At least 80% of students in ITEC 424 must achieve level 2 or better performance on the final oral presentation.

**Finding (2015-2016) - Target: Met**

94% of 18 students enrolled in ITEC 424 in Fall 2015 successfully obtained level 2 or better performance on the final oral project presentation.

**M 7: Final Layout Project Presentation - ITEC 446**

A decision making rubric validated for reliability validity by the university assessment office. Number of students assessed = 66

Source of Evidence: Project, either individual or group

**Target:**

At least 80% of students in ITEC 446 must achieve level 2 or better performance rating on the final oral presentation.

**Finding (2015-2016) - Target: Met**

97% of 62 students enrolled in ITEC 446 for fall 2015 and spring 2016 successfully completed the final layout project oral presentation.

**Related Action Plans (by Established cycle, then alpha):**

**Increase the Percentage of students Achieving a Level 2 Performance on Final Oral Presentations.**

The ITEC department will increase the minimum percentage of students in ITEC 446 achieving level 2 or better performance rating on the final oral presentation to 85%. The ITEC department will review the data over a three year cycle and if 90% or better continues to be achieved, then this measurement will be retired.

**Established in Cycle:** 2013-2014

**Implementation Status:** In-Progress

**Priority:** High

**Relationships (Measure | Outcome/Objective):**

**Measure:** Final Layout Project Presentation - ITEC 446 |

**Outcome/Objective:** Oral Communication

**M 11: University Graduating Communication Survey**

University developed and locally administered graduating senior exit survey.

Source of Evidence: Academic indirect indicator of learning - other

**Target:**

90% of ITEC graduating seniors students completing a university developed and locally administered exit survey will indicate that they communicate effectively in oral communication.

**Finding (2015-2016) - Target: Not Met**

88% of 76 ITEC graduating seniors students completing a Fall 2015 and Spring 2016 locally administered university graduate exit survey indicated satisfactory knowledge of oral communications in formal public speaking and informal speaking context.

**Connected Documents**

[Graduate Exit Survey FA2015](#)

[Graduate Exit Survey SP2016](#)

**Related Action Plans (by Established cycle, then alpha):**

**Increase the Percentage of Graduating Seniors That Indicate That They Can Communicate Effectively Orally to 90%.**

Increase the minimum percentage of ITEC graduating seniors completing a university developed and locally administered graduate exit survey will indicate that they communicate effectively in oral communication from 88% to 90%. Practice with oral presentations will occur in ITEC 268 General Safety and Accident Prevention and ITEC 446 Facility Planning.

**Established in Cycle:** 2015-2016

**Implementation Status:** In-Progress

**Priority:** High

**Relationships (Measure | Outcome/Objective):**

**Measure:** University Graduating Communication Survey |

**Outcome/Objective:** Oral Communication

**SLO 7: Math Principles**

ITEC students will apply mathematical, statistical and scientific principles to industrial situations to maintain and enhance the work within industry.

**Related Measures**

**M 10: Embedded Question For Students in ITEC 474**

Embedded question given to students in ITEC 474 to indicate their knowledge of statistical quality control.

Source of Evidence: Academic direct measure of learning - other

**Target:**

A minimum of 70% of the students evaluated in ITEC 474 will be able to correctly calculate and plot a Histogram with required data given

**Finding (2015-2016) - Target: Not Met**

68% of 114 students enrolled in ITEC 474 for fall 2015 and spring 2016 successfully completed an embedded problem which required them to correctly calculate and plot a Histogram with given data.

**Related Action Plans (by Established cycle, then alpha):**

**Maintain a 70% Success Rate in Students Who Successfully Calculate and Plot a Histogram.**

The ITEC department will maintain an 70% success rate of students successfully calculating and plotting a Histogram on an embedded question. In the 2014-2015 academic year the math requirements will change from Math 105 and 210 to Math 109 and 110 which should help students to have a better understanding in this course. Data will be evaluated in the 2015-2016 academic year and the minimum percentage will be adjusted if feasible.

**Established in Cycle:** 2013-2014

**Implementation Status:** In-Progress

**Priority:** High

**Relationships (Measure | Outcome/Objective):**

**Measure:** Embedded Question For Students in ITEC 474 |

**Outcome/Objective:** Math Principles

**Implementation Description:** Because ITEC 474 is a senior level course, the effects of the change in Math requirements may not show up for a three year period. We will continue to monitor the results yearly to see if the change has helped. Also, emphasis on calculating and plotting a histogram will continue in the course work.

**Increase the Percentage of Students who Successfully Calculate and Plot a Histogram in ITEC 474**

Increase the percentage by at least 2% to meet the minimum goal of 70% of students who successfully calculate and plot a histogram by hand in the ITEC 474 course.

**Established in Cycle:** 2015-2016

**Implementation Status:** In-Progress

**Priority:** High

**Relationships (Measure | Outcome/Objective):**

**Measure:** Embedded Question For Students in ITEC 474 |

**Outcome/Objective:** Math Principles

**Measure:** University Graduating Math & Science Survey |

**Outcome/Objective:** Math Principles

**Implementation Description:** In an effort to increase the percentage of students who successfully calculate and plot a histogram by hand in the ITEC 474 course, emphasis on this topic will be stressed through out the course and tested on the final comprehensive exam.

**M 12: University Graduating Math & Science Survey**

University developed and Locally administered graduating senior exit survey.

Source of Evidence: Academic indirect indicator of learning - other

**Target:**

85% of ITEC graduating seniors students completing a university developed and locally administered graduate exit survey will indicate satisfactory knowledge of scientific preparation and quantitative analysis.

**Finding (2015-2016) - Target: Partially Met**

88% of 76 ITEC graduating seniors students completing a Fall 2015 or Spring 2016 locally administered university graduate exit survey indicated satisfactory knowledge of quantitative analysis preparation; while 83% of the 76 reported satisfaction in scientific knowledge preparation.

**Connected Documents**

[Graduate Exit Survey FA2015](#)

[Graduate Exit Survey SP2016](#)

**Related Action Plans (by Established cycle, then alpha):**

**Increase the percent to 85% Success Rate in Students Knowledge of Scientific Preparation and Quantitative Analysis**

The ITEC department will increase the minimum requirement to 85% success rate for ITEC graduating seniors who indicate satisfactory knowledge of scientific preparation and quantitative analysis.

In the 2014-2015 academic year the math requirements will change from Math 105 and 210 to Math 109 and 110 which should increase students understanding of quantitative analysis.

**Established in Cycle:** 2014-2015  
**Implementation Status:** In-Progress  
**Priority:** High

**Relationships (Measure | Outcome/Objective):**  
**Measure:** University Graduating Math & Science Survey |  
**Outcome/Objective:** Math Principles

**Projected Completion Date:** 05/2016

**Increase the Percentage of Students who Successfully Calculate and Plot a Histogram in ITEC 474**

Increase the percentage by at least 2% to meet the minimum goal of 70% of students who successfully calculate and plot a histogram by hand in the ITEC 474 course.

**Established in Cycle:** 2015-2016  
**Implementation Status:** In-Progress  
**Priority:** High

**Relationships (Measure | Outcome/Objective):**  
**Measure:** Embedded Question For Students in ITEC 474 |  
**Outcome/Objective:** Math Principles  
**Measure:** University Graduating Math & Science Survey |  
**Outcome/Objective:** Math Principles

**Implementation Description:** In an effort to increase the percentage of students who successfully calculate and plot a histogram by hand in the ITEC 474 course, emphasis on this topic will be stressed through out the course and tested on the final comprehensive exam.

**Maintain an 85% Success Rate with Quantitative Analysis Understanding and Increase to 85% Satisfactory Scientific Knowledge.**

Maintain a minimum of an 85% success rate for ITEC graduating seniors who indicate satisfactory knowledge of quantitative analysis and increase to 85% satisfactory knowledge of scientific knowledge and quantitative analysis. In the 2014-2015 academic year the math requirements changed from Math 105 and 210 to Math 109 and 110 which has not yet impacted graduating senior understanding of quantitative analysis.

**Established in Cycle:** 2015-2016  
**Implementation Status:** In-Progress  
**Priority:** High

**Relationships (Measure | Outcome/Objective):**  
**Measure:** University Graduating Math & Science Survey |  
**Outcome/Objective:** Math Principles

**SLO 8: Information Technology**

Industrial Technology students will use the computer proficiently as well as information technology as an essential tool in planning, monitoring, and controlling of work within industry.

**Related Measures**

**M 13: University Graduating IT Survey- Retire**

University administered graduating senior exit survey.

Source of Evidence: Academic indirect indicator of learning - other

**Target:**

70% of respondents to a 2012 employer survey will indicate satisfaction with an ITEC graduate's technical skills in information technology.

**Finding (2015-2016) - Target: Not Reported This Cycle**

This data is based on an Employer Survey that is conducted every 5 years. The last survey was conducted in 2012 and the results showed that 10 (83%) of 12 employers that responded to a 2012 employer survey indicated that ITEC graduates had excellent or above average skills in the use of standard software application packages for problem solving and daily work activities. The next Employer Survey will be conducted during the 2016-2017 academic year.

#### **M 14: University Graduating IT Survey**

University developed and locally administered graduating senior exit survey.

Source of Evidence: Academic indirect indicator of learning - other

**Target:**

70% of ITEC graduating seniors students completing a university developed and locally administered graduate exit survey will indicate satisfactory knowledge of information technology.

**Finding (2015-2016) - Target: Met**

92% of 76 ITEC graduating seniors students completing a Fall 2015 and Spring 2016 locally administered university graduate exit survey indicated satisfactory knowledge of information technology.

**Connected Documents**

[Graduate Exit Survey FA2015](#)

[Graduate Exit Survey SP2016](#)

**Related Action Plans (by Established cycle, then alpha):**

**Maintain a Minimum of 85% Success Rate by Senior on Knowledge of Information Technology**

Maintain a minimum of a 85% success rate on seniors who complete the graduate exit survey indicating satisfactory knowledge of information technology.

**Established in Cycle:** 2015-2016

**Implementation Status:** In-Progress

**Priority:** High

**Relationships (Measure | Outcome/Objective):**

**Measure:** University Graduating IT Survey |

**Outcome/Objective:** Information Technology

#### **M 17: Alumni IT Survey**

Locally developed alumni survey conducted on 5 year cycle.

Source of Evidence: Alumni survey or tracking of alumni achievements

**Target:**

Responses to a 2012 alumni survey will indicate 70% satisfaction with their understanding information technology.

**Finding (2015-2016) - Target: Not Reported This Cycle**

This measure is based on data from an Alumni Survey conducted every five years. The most recent survey was completed in 2012 and shows that 87% of the respondents were somewhat satisfied to completely satisfied with their understanding and preparation of information technology. The next Alumni Survey is expected to be conducted in the 2016-2017 academic year.

**Related Action Plans (by Established cycle, then alpha):**

**Maintain the Percentage of ITEC Alumni That Are Satisfied with their Understanding and Preparation of Information Technology.**

The ITEC department will maintain at least a 70% success rate of students that are satisfied to completely satisfied with their understanding and preparation of information technology. The ITEC department will

review the data over the next three years and if we are able to consistently maintain over 80%, we will raise the minimum requirement to 85%.

**Established in Cycle:** 2013-2014

**Implementation Status:** In-Progress

**Priority:** High

**Relationships (Measure | Outcome/Objective):**

**Measure:** Alumni IT Survey | **Outcome/Objective:** Information Technology

### **Create On-line Survey for Alumni for 2017 Cycle**

A new online survey will be created for the next cycle on Alumni surveys. This survey will be accessible through the ITEC Department's website making the survey easier to complete.

**Established in Cycle:** 2014-2015

**Implementation Status:** In-Progress

**Priority:** High

**Relationships (Measure | Outcome/Objective):**

**Measure:** Alumni IT Survey | **Outcome/Objective:** Information Technology

**Measure:** Alumni Management Survey | **Outcome/Objective:** Understand Management Concepts

**Implementation Description:** The new online survey will be created and finalized by January 2017 using Drupal in the ITEC website.

### **M 20: Employer IT Survey**

Locally developed employer survey conducted on 5 year cycle.

Source of Evidence: Employer survey, incl. perceptions of the program

#### **Target:**

Employer surveys will indicate that 70% of employers are satisfied with the performance of ITEC graduates related to computer proficiency and knowledge of information technology.

#### **Finding (2015-2016) - Target: Not Reported This Cycle**

This measure is based on data from a Employer Survey conducted every five years. The most recent survey was completed in the 2012 and the data shows that 92% of the employers indicated satisfaction with the ITEC graduates' use of standard software application packages for problem solving and daily work activities. The next Employer Survey will be conducted in the 2016-2017 academic year.

#### **Related Action Plans (by Established cycle, then alpha):**

#### **Maintain a 70% Success Rate in Employers Who are Satisfied with ITEC Graduates' Computer Proficiency and Knowledge of IT.**

The ITEC department will maintain a 70% Success Rate in Employers who are satisfied with ITEC graduates' computer proficiency and knowledge of information technology. The most recent employer survey conducted in 2012 has 12 respondents. The ITEC department will set a goal to increase the respondents from 12 to 20 in the 2017 cycle.

**Established in Cycle:** 2013-2014

**Implementation Status:** In-Progress

**Priority:** High

**Relationships (Measure | Outcome/Objective):**

**Measure:** Employer IT Survey | **Outcome/Objective:**  
Information Technology

**Create On-line Survey for Employer for 2017 Cycle**

A new online survey will be created for the next cycle on Employer surveys. This survey will be accessible through the ITEC Department's website making the survey easier to complete.

**Established in Cycle:** 2014-2015

**Implementation Status:** In-Progress

**Priority:** High

**Relationships (Measure | Outcome/Objective):**

**Measure:** Employer Electrical Survey | **Outcome/Objective:**  
Understanding of Electrical Problems

**Measure:** Employer IT Survey | **Outcome/Objective:**  
Information Technology

**Measure:** Employer Management Survey |

**Outcome/Objective:** Understand Management Concepts

**Measure:** Employer Safety Survey | **Outcome/Objective:**  
Understanding of Safety

**Implementation Description:** The online survey will be created and finalized by January 2017 using Drupal within the ITEC Website.

**SLO 9: Understanding of Fluid Power Systems**

ITEC students will be able to demonstrate an understanding of the fundamentals of fluid power systems to solve industrial problems.

**Related Measures**

**M 3: Embedded Questions for Fluid Power Systems - ITEC 307**

Embedded questions related to retained knowledge of fundamentals of fluid power systems of ITEC 307 students.

Source of Evidence: Academic direct measure of learning - other

**Target:**

At least 70% of the students evaluated in ITEC 307 will correctly answer questions related to the understanding of Fluid Power Systems.

**Finding (2015-2016) - Target: Met**

75% of the 40 students enrolled in ITEC 307, Section 001, Spring 2016 successfully completed the questions related to Fluid Power Systems.

**Related Action Plans (by Established cycle, then alpha):**

**Maintain at a 70% success in the knowledge of the Fundamentals of Fluid Power Systems**

The ITEC department will maintain at least a 70% success rating for students enrolled in ITEC 307. At the end of 2014-2015 academic year, data and findings will be evaluated and it will be determined on whether to raise the percentage at that time.

**Established in Cycle:** 2013-2014

**Implementation Status:** In-Progress

**Priority:** High

**Relationships (Measure | Outcome/Objective):**

**Measure:** Embedded Questions for Fluid Power Systems -  
ITEC 307 | **Outcome/Objective:** Understanding of Fluid  
Power Systems

**How were assessment results shared and evaluated within the unit?**

Input to the assessment is obtained from the faculty in ITEC throughout the year. Data results are obtained from the appropriate faculty. The final version of the assessment results are sent to the faculty in the department by the Department Head for review. On objectives not met, discussions with the appropriate faculty as well as others within the department are held and a plan of action for success is implemented.

**Identify which action plans [created in prior cycle(s)] were implemented in this current cycle. For each of these implemented plans, were there any measurable or perceivable effects? How, if at all, did the findings appear to be affected by the implemented action plan?**

Sixty seven percent of the objectives for the department that were reported in 2015-2016 have realized higher or same level results in the last assessment cycle and 79% have met the department's targets.

**What has the unit learned from the current assessment cycle? What is working well, and what is working less well in achieving desired outcomes?**

During the 2016-16 academic year, several course prerequisite changes were required to work within the new ERP BANNER system. These changes will impact planned tracking of course outcomes that were identified in the 2014-15 WEAVE Analysis Section. Currently over 2/3rds of program majors (~300) are following 2013-15 catalog. These changes among with students that are currently matriculating through the program will require 2+ years before implemented changes can begin to be measured.

Switching to an online graduate survey has helped to collect data and analyze results faster. In the 2016-2017 year we will develop an online alumni survey and an employer survey. Data collection will begin in 2017.

We have a couple of measures and objectives that continue to achieve a 100% success will be retired in 2016-17 cycle and new measures/objectives will be developed.

Assessment of incident severity knowledge has not been successful at the senior level. It has been determined that too many variables impact outcome at senior level so assessment will be targeted at the basic safety course.