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

SLO 1: Planning and Strategies
Students will be able to demonstrate the ability to effectively develop plans and strategies.

Related Measures:

M 1: Research Project in IET 670
In IET 670, students are assigned with a Research Project in which they develop a plan and implement strategies to solve real typical industry problems in their area.

Source of Evidence: Project, either individual or group

Target:
80% of the students' score will be 80% or better on the technical content of the IET 670 Group Project. (Scale: 100-90% = Advanced, 89-80% = Adequate, 79-70% = Minimally Acceptable, <70% Unacceptable)

Findings (2011-2012) - Target: Met
There were 5 students in IET 670 class offered in the fall of 2011. 80% (4 out of 5) of the students received 80% or better on the technical content of the IET 670 group project.

Related Action Plans (by Established cycle, then alpha):
For full information, see the Details of Action Plans section of this report.

Offer IET 670 Fall 2011
Established in Cycle: 2010-2011
IET 670 will be offered during Fall 2011

More challenging projects
Established in Cycle: 2011-2012
Objective was met. To further improve the quality of research project, students will be given contemporary and challenging topic...

M 2: Case Analysis in IET 615
In IET 615, students will evaluate the effectiveness of various systems for planning and strategies in case study and/or final exams.

Source of Evidence: Writing exam to assure certain proficiency level

Target:
80% of the students' score will be 80% or better on modeling section of the final exam of the IET 615 courses.

Related Action Plans (by Established cycle, then alpha):
For full information, see the Details of Action Plans section of this report.

Update Materials on Modeling
Established in Cycle: 2010-2011
The target was met. To continue improving the program new materials will be updated in the course regarding modeling.

**SLO 2: Operations, Management and Leadership**
Students will demonstrate critical skills necessary in operations, management and leadership.

**Related Measures:**

**M 3: Final Examination in IET 571**
Final Examination in IET 571, students will use various operations and management tools and techniques in hypothetical exercises and/or in class projects.

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

**Target:**
80% of the students' score will be 80% or better on the specific analytical section of the final exam of IET 571 course.

**Findings (2011-2012) - Target: Met**
There were only 3 students in IET 571 class offered in the fall of 2011. 100% (3 out of 3) of the students received 80% or better on the specific analytical section of the final exam of IET 571 course.

**Related Action Plans (by Established cycle, then alpha):**
For full information, see the Details of Action Plans section of this report.

**Add Variable to Analytical Section of IET 571**
*Established in Cycle:* 2010-2011
The target was met. To continue improving the program additional variable(s) on the analytical section of the course and final...

**Including additional variable(s) on the analytical section of final exam**
*Established in Cycle:* 2011-2012
The target was met. To continue improving the program additional variable(s) on the analytical section of the course and final e...

**M 4: Exit Survey**
Students' own recognition of their Management skills and Leadership abilities. An exit survey will be administered to graduating students. These surveys will ask questions regarding the person’s own perception regarding his/her Management skills and Leadership abilities.

Source of Evidence: Exit interviews with grads/program completers

**Target:**
70% of the students' responses upon graduation will be 4 or better, where: 5= Very Satisfied 4=Satisfied 3=Somewhat Satisfied 2=Somewhat Dissatisfied 1=Dissatisfied.

**Related Action Plans (by Established cycle, then alpha):**
For full information, see the Details of Action Plans section of this report.

**Develop and Deploy Exit Survey**
*Established in Cycle:* 2010-2011
An "Exit Survey" will be developed and deployed during the 2011-2012 Academic Year

**SLO 3: Systems Analysis and Modeling**
Students will be capable to perform systems analysis and develop models for various systems.
**Related Measures:**

**M 5: Assignments in IET 671**

In IET 671, students will analyze a typical logistics system in their area and develop models for that system.

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

**Target:**

80% of the students' score will be 80% or better on the analytical part of related case studies and/or assignments of the IET 671 course.

**Findings (2011-2012) - Target: Met**

Eight students took IET 671 course each student was required to complete on eight case studies. The following is a summary of students' performance on the case studies.

<table>
<thead>
<tr>
<th>Scale</th>
<th>Number of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>100-90% - Advance</td>
<td>4 (50%)</td>
</tr>
<tr>
<td>89%-80% - Adequate</td>
<td>3 (37.5%)</td>
</tr>
<tr>
<td>79%-70% - Minimally Acceptable</td>
<td>1 (12.5%)</td>
</tr>
<tr>
<td>69%- 0% - Unacceptable</td>
<td>0 (none)</td>
</tr>
</tbody>
</table>

Findings: Only 7 out 8 (87.5%) students' scored 80% or better on the analytical part of related case studies of the IET 671.

Therefore, the achievement target was met

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

For full information, see the Details of Action Plans section of this report.

**Add Demostration Case Studies**

*Established in Cycle: 2010-2011*

The target was met. To continue improving the program additional demonstration case studies will be included in the course.

**M 6: Group Project in IET 571**

In IET 571, students will effectively communicate systems analysis and modeling work through well written report and verbal presentation.

Source of Evidence: Project, either individual or group

**Target:**

80% of the students' score will be 80% or better on written and oral component of IET 571 group project.

(Scale: 100-90% = Advanced, 89-80% = Adequate, 79-70%=Minimally Acceptable, <70% Unacceptable)

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

For full information, see the Details of Action Plans section of this report.

**Invite Peer to Group Presentation to Provide Constructive Comments**

*Established in Cycle: 2010-2011*
The target was met. To continue improving the program a peer faculty will be invited to the group presentation to provide addi...

SLO 4: Transportation and Trade Policy
Students will be able to analyze transportation and trade policy and evaluate their impact on systems.

Related Measures:

M 7: Midterm Examination in IET 570
In IET 570, students will examine various trade & transportation rules and policies in their domain.

Source of Evidence: Writing exam to assure certain proficiency level

Target:
80% of the students' score will be 80% or better on the policy section of midterm exam of IET 570 course. (Scale: 100-90% = Advanced, 89-80% = Adequate, 79-70%=Minimally Acceptable, <70% Unacceptable)

Findings (2011-2012) - Target: Met
There were 14 students in IET 570, offered in spring 2012. 87% students' score was 80% or better on the policy section of midterm exam of IET 570 course.

Related Action Plans (by Established cycle, then alpha):
For full information, see the Details of Action Plans section of this report.

Update Material on Policy Content
Established in Cycle: 2010-2011
The target was met. To continue improving the program updated policy material will be added to this course.

The target was met but continuous improvement plan is in place.
Established in Cycle: 2011-2012
The target was met. To continue improving the program updated policy material will be added to this course.

M 8: Case Study in IET 672
In IET 672, students will analyze the impact of various trade & transportation rules and policies on the national and global context.

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

Target:
80% of the students' score will be 80% or better on case study 4 related to transportation selection for cost optimization in IET 672 course. (Scale: 100-90% = Advanced, 89-80% = Adequate, 79-70%=Minimally Acceptable, 70% Unacceptable)

SLO 5: Integration of Core Competencies
Students will have the ability to integrate core competencies of the LTT program and become competent in solving real world problems in their domain.

Related Measures:

M 9: Comprehensive Exam
In comprehensive exam, students will be able to integrate essential concepts (core competencies) to successfully perform discipline tasks.
**Source of Evidence: Comprehensive/end-of-program subject matter exam**

**Target:**
80% of the students' score will be 80% or better on the integrated question on core competency section of MS comprehensive exam that covers all LTT core courses. (Scale: 100-90% = Advanced, 89-80% = Adequate, 79-70% = Minimally Acceptable, 70% Unacceptable)

**Findings (2011-2012) - Target: Met**
There were 3 students who attend the MS comprehensive exam in 2011-2012. 100% students' score was 80% or better on the integrated question on core competency section of MS comprehensive exam.

**Related Action Plans (by Established cycle, then alpha):**
For full information, see the Details of Action Plans section of this report.

**Begin Moving Comprehensive Exam to Online Format**  
*Established in Cycle: 2010-2011*

The target was met. To continue improving the program the multiple choice portion of the comprehensive exam will be moved to...

**Standardize the process of conducting comprehensive exam.**  
*Established in Cycle: 2011-2012*

The target was met. The comp exam was conducted online but had some issues. To continue improving the program the comp exam proc...

**M 10: Exit Survey**
Exit Survey Students will develop confidence in performing real world tasks and demonstrate meaningful application of essential knowledge and skills. An exit survey will be administered to graduating students. These surveys will ask questions regarding the person's own perception regarding his/her ability to solve real world problems and their current employment information.

**Source of Evidence: Exit interviews with grads/program completers**

**Target:**
8 out 10 students' responses upon graduation will be 4 or better, where: 5= Very Satisfied  
4=Satisfied 3=Somewhat Satisfied 2=Somewhat Dissatisfied 1=Dissatisfied.

**Related Action Plans (by Established cycle, then alpha):**
For full information, see the Details of Action Plans section of this report.

**Exit Survey Development and Deployment**  
*Established in Cycle: 2010-2011*

An "Exit Survey" will be developed and deployed during the 2011-2012 Academic Year

**Details of Action Plans for This Cycle (by Established cycle, then alpha)**

**Add Demostration Case Studies**

The target was met. To continue improving the program additional demonstration case studies will be included in the course.

**Established in Cycle:** 2010-2011  
**Implementation Status:** Planned
Add Variable to Analytical Section of IET 571

The target was met. To continue improving the program additional variable(s) on the analytical section of the course and final exam will be included.

Established in Cycle: 2010-2011
Implementation Status: Planned
Priority: High

Relationships (Measure | Outcome/Objective):
Measure: Assignments in IET 671 | Outcome/Objective: Systems Analysis and Modeling

Begin Moving Comprehensive Exam to Online Format

The target was met. To continue improving the program the multiple choice portion of the comprehensive exam will be moved to Blackboard so the students can take it directly on-line.

Established in Cycle: 2010-2011
Implementation Status: Planned
Priority: High

Relationships (Measure | Outcome/Objective):
Measure: Final Examination in IET 571 | Outcome/Objective: Operations, Management and Leadership

Develop and Deploy Exit Survey

An "Exit Survey" will be developed and deployed during the 2011-2012 Academic Year

Established in Cycle: 2010-2011
Implementation Status: Planned
Priority: High

Relationships (Measure | Outcome/Objective):
Measure: Exit Survey | Outcome/Objective: Operations, Management and Leadership

Exit Survey Development and Deployment

An "Exit Survey" will be developed and deployed during the 2011-2012 Academic Year

Established in Cycle: 2010-2011
Implementation Status: Planned
Priority: High

Relationships (Measure | Outcome/Objective):
Measure: Exit Survey | Outcome/Objective: Integration of Core Competencies

Invite Peer to Group Presentation to Provide Constructive Comments

The target was met. To continue improving the program a peer faculty will be invited to the group presentation to provide additional constructive comments to the students on their oral presentation skills.
Established in Cycle: 2010-2011
Implementation Status: Planned
Priority: High

Relationships (Measure | Outcome/Objective):
Measure: Group Project in IET 571 | Outcome/Objective: Systems Analysis and Modeling

Offer IET 670 Fall 2011

IET 670 will be offered during Fall 2011

Established in Cycle: 2010-2011
Implementation Status: Planned
Priority: High

Relationships (Measure | Outcome/Objective):
Measure: Research Project in IET 670 | Outcome/Objective: Planning and Strategies

Plan to extend time to complete each case study

The students had one week to complete each case study for IET 671. The plan is to provide ten days for each case study. Total number of cases could be reduced to seven cases by combining few case studies into one group.

Established in Cycle: 2010-2011
Implementation Status: Planned
Priority: High

Update Material on Policy Content
The target was met. To continue improving the program updated policy material will be added to this course.

Established in Cycle: 2010-2011
Implementation Status: Planned
Priority: High

Relationships (Measure | Outcome/Objective):
Measure: Midterm Examination in IET 570 | Outcome/Objective: Transportation and Trade Policy

Update Materials on Modeling
The target was met. To continue improving the program new materials will be updated in the course regarding modeling.

Established in Cycle: 2010-2011
Implementation Status: Planned
Priority: High

Relationships (Measure | Outcome/Objective):
Measure: Case Analysis in IET 615 | Outcome/Objective: Planning and Strategies

Including additional variable(s) on the analytical section of final exam
The target was met. To continue improving the program additional variable(s) on the analytical section of the course and final exam will be included.

- **Established in Cycle:** 2011-2012
- **Implementation Status:** Planned
- **Priority:** High

**Relationships (Measure | Outcome/Objective):**
- **Measure:** Final Examination in IET 571 | **Outcome/Objective:** Operations, Management and Leadership

**More challenging projects**
Objective was met. To further improve the quality of research project, students will be given contemporary and challenging topics.

- **Established in Cycle:** 2011-2012
- **Implementation Status:** Planned
- **Priority:** High

**Relationships (Measure | Outcome/Objective):**
- **Measure:** Research Project in IET 670 | **Outcome/Objective:** Planning and Strategies

**Standardize the process of conducting comprehensive exam.**
The target was met. The comp exam was conducted online but had some issues. To continue improving the program the comp exam process will be standardized in terms of schedule setup, grading, and reporting in the graduate school.

- **Established in Cycle:** 2011-2012
- **Implementation Status:** Planned
- **Priority:** High

**Relationships (Measure | Outcome/Objective):**
- **Measure:** Comprehensive Exam | **Outcome/Objective:** Integration of Core Competencies

**The target was met but continuous improvement plan is in place.**
The target was met. To continue improving the program updated policy material will be added to this course.

- **Established in Cycle:** 2011-2012
- **Implementation Status:** Planned
- **Priority:** High

**Relationships (Measure | Outcome/Objective):**
- **Measure:** Midterm Examination in IET 570 | **Outcome/Objective:** Transportation and Trade Policy