



**Degree Program  
Assessment of Student Learning Plan  
Kansas State University**

BY:.....

- Check the box if your program's student learning outcomes have been modified since November 2003. If so, please email ([apr@ksu.edu](mailto:apr@ksu.edu)) or attach a hard copy to this document.

**A. College, Department, and Date**

College: *Engineering*  
Department: *Industrial and Manufacturing Systems Engineering*  
Date: *10/22/2004*

**B. Contact Person(s) for the Assessment Plans**

*Shing Chang, Associate Professor*  
*Margaret Rys, Associate Professor*

**C. Degree Program**

*B.S. in Industrial Engineering*

**D. Assessment of Student Learning Three-Year Plan**

**1. Student Learning Outcome(s)**

- Apply Knowledge of mathematics, science and engineering
- Design a system, component or process to produce goods and services
- Communicate Effectively

Special rationale for selecting these learning outcomes (optional):

These selected outcomes are part of IMSE student learning outcomes for Accreditation Broad of Engineering and Technology (ABET). The selection of these criteria will ensure that three out of five university-wide SLOs are assessed. Note that all three SLOs can be assessed directly as shown in the table shown in D.2.

Relationship to K-State Student Learning Outcomes (insert the program SLOs and check all that apply):

Program SLOs	University-wide SLOs (Undergraduate Programs)					Program SLO is conceptually different from university SLOs
	Knowledge	Critical Thinking	Communication	Diversity	Academic / Professional Integrity	
1. Apply Knowledge of mathematics, science and engineering	X					
2. Design a system, component, or process to produce goods and services	X	X				
3. Communicate effectively			x			

**2. How will the learning outcomes be assessed? What groups will be included in the assessment?**

Learning Outcomes	Measures			Who will be assessed?
	Direct	Indirect	Not Sure	
1. Apply Knowledge of mathematics, science and engineering	IMSE 560 OR 1 Solve Simplex method			Those who take the course
2. Design a system, component, or process	IMSE 580/591-592 Capstone design projects			Those who take the course
3. Communicate effectively	IMSE 623 Evaluate presentations			Those who take the course
	IMSE 643 Evaluate lab reports			Those who take the course

**3. When will these outcomes be assessed? When and in what format will the results of the assessment be discussed?**

The IMSE SLO will be assessed at the finishes of a few required IMSE courses – IMSE 560, 623, 643 and 580/591-592 which are required courses for our undergraduate students. The results of assessment in terms of exams, labs, projects, presentations, and reports will be discussed in faculty meetings or faculty retreats usually scheduled during summer before fall semesters begin.

**4. What is the unit's process for using assessment results to improve student learning?**

During IMSE faculty retreats and meetings, course and curriculum improvement process starts with studying the data provided from those courses related to IMSE SLOs. Faculty members will provide reports and recommendations for each of those courses. Discussions among general faculty will provide suggestions or action items that trigger improvement recommendations. Some of the recommendations may involve other constituents such as IMSE advisory counsel and student organizations. This continuous improvement loop is closed in one of the review sessions in faculty retreats and meetings.