

Engineering Program Objectives

The Department of Engineering provides a quality engineering education which, produces graduates who

- Exhibit evidence of successfully applying their learned skills throughout their professional pursuits
- Have the enthusiasm and aptitude to continuously pursue learning
- Have the ability to communicate and work well on teams that include engineers and colleagues from other disciplines
- Are recognized as qualified engineers with high ethical standards

Engineering Program Outcomes

Following is the list of engineering department *program outcomes* selected as attributes of our graduates:

1. Graduates will have knowledge in the core industrial engineering areas (probability and statistics, work design and measurement, human factors, operations research and manufacturing systems).
2. Graduates will have knowledge in broad areas of industrial engineering beyond the core areas.
3. Graduates will have proficiency in developing solutions to problems involving systems integration.
4. Graduates will have the ability to communicate effectively.
5. Graduates will have the ability to function in teams.
6. Graduates will have an awareness of the complex environment (involving professional and ethical responsibilities) in which they will practice their profession.
7. Graduates will have the ability to educate themselves and be prepared for lifelong learning and professional development.
8. Graduates will have experience in solving real life problems.
9. Graduates will have a broad education necessary to understand the impact of engineering solutions in a societal context.

Knowledge in core IE areas
 Knowledge in broad IE areas
 Proficiency in systems integration
 Specialized knowledge in selected areas
 Ability to communicate effectively
 Ability to function in teams
 Ability to function in a complex environment in which engineering is practiced
 Ability to self-learn
 Experience in solving real life problems
 Understand the impact of engineering solutions in a

IE Curriculum with core area courses, breadth of topics covered & technical electives for depth of understanding
 Industry -based capstone projects
 Designated courses with open

Process for Input, Evaluation, and Revision of Program Outcomes

Assessment Process

The flow diagram below summarizes the assessment and evaluation process for program outcomes.

We have decided to use the following assessment tools for the evaluation of outcomes achievement:

1. Course portfolio (each quarter).
2. Survey and interview with graduating seniors (every quarter).
3. Alumni survey (every other Fall).
4. Senior project evaluation by Faculty/Sponsors/IAB (each Winter/Spring).
5. Mock program evaluation by IAB (every year).
6. Faculty self-assessment of courses (every year).

Mapping of Program Outcomes and Assessment Tools.

Assessment Tool	1. Core Knowledge	2. Broad Knowledge	3. Processes/System Design, Problem Solving	4. Effective Communication	5. Teaming	6. Awareness of Complex Environment	7. Ability to Self Educate	8. Real Life Problem Solving Experience	9. Impact of Engr. Solution
Course Portfolios	√	√	√	√	√			√	
Alumni Survey				√	√	√	√	√	√
Survey/ Interview of			√	√	√	√		√	√

Assessment Tool	1. Core Knowledge	2. Broad Knowledge	3. Processes/System Design, Problem Solving	4. Effective Communication	5. Teaming	6. Awareness of Complex Environment	7. Ability to Self Educate	8. Real Life Problem Solving Experience	9. Impact of Engr. Solution
	Graduating seniors								
Senior Project Evaluation by Faculty, Industry Sponsors & IAB			√	√	√	√	√		√
Mock Program Evaluation by IAB			√	√	√			√	
Faculty course self assessment	√	√	√	√	√	o			