



Industrial and Manufacturing Engineering Department Assessment Report – Master of Science in Industrial Engineering

Goals

The five program Goals were originally developed by the Department faculty in conjunction with the department alumni and department visiting committee for the Bachelor of Industrial Engineering degree. All the goals are also appropriate for the MSIE as well.

1. Practice industrial engineering in one or more of the following enterprise areas, for example: manufacturing systems, quality systems, operations analysis, production planning, and facilities planning and design.
2. Define and diagnose problems from an industrial engineering perspective, and implement solutions in an enterprise-wide environment.
3. Communicate effectively with technically and professionally diverse audiences at all levels of the enterprise.
4. Collaborate with others as a member or as a leader of an engineering or cross-functional enterprise team.
5. Continue to pursue life-long learning to develop knowledge professionally and keep current with the latest advancements in industrial engineering.

Scoring

The MSIE students are surveyed when they file for graduation, and the responses are filed. At the end of Spring semester the responses are summarized and the summary is reviewed for problems, trends and possible changes.

The matrix on the next page is the summary and analysis of the MSIE students for the Academic year 2006.



2006 Assessment Report

Cleveland State University

Survey summary and analysis of the 2006 MSIE graduates:

	In my studies for the Master of Science in Industrial Engineering at Cleveland State University, I:	Strongly Agree				Strongly Disagree	Weighted Total	Percentage of Total
	Outcomes Weights→	5	4	3	2	1		
1.	acquired a good knowledge of some advanced engineering analysis tools.	6	2				38	95
2.	acquired a good knowledge of engineering design tools.	3	5				35	88
3.	learned how to use analysis and design tools to design practical systems.	4	4				36	90
4.	learned how to access the literature in my field of study.	6	2				38	95
5.	used the literature in my field of study (outside of texts).	5	2	1			36	90
6.	learned to improve my oral communications skills.	6	2				38	95
7.	learned to improve my written communications skills.	6	1	1			37	93
	Total Points						258	
	Overall average						37	92

Calculations: The weighted total column represents the weighted response for each question. It was calculated as follows: The maximum number of points for any question would have been the number of responses times 5—in this case 8 X 5 = 40. The actual response total for question 1 is 38. Therefore the Percentage of Total is 95%.

Comments: The results indicate that the program outcomes are being achieved to a high level. Two areas that may need explanation are related to questions 4 through 7. The MSIE courses are technical and most of the projects and reports do not require extensive literature searches or oral presentations. Therefore, we would expect these to be low, but the results indicate that they are to the contrary, quite good. Questions 6 and 7 deal with the ability to communicate, and these also show good results.

This is the first year for submission of the NCA Assessment report the MSIE degree. The department will work to continue to formalize the process.