



NORTHERN ILLINOIS UNIVERSITY

College of Engineering and Engineering Technology

Department of Technology

CONTINUOUS IMPROVEMENT PLAN DEPARTMENT OF TECHNOLOGY M.S. IN INDUSTRIAL MANAGEMENT (2012)

INTRODUCTION

The Masters Degree in Industrial Management offered within the Department of Technology has been designed to provide advanced instruction and practice in the area of manufacturing processes and systems. As such, the department must ensure that all of the coursework that is provided in this program must be appropriate to provide the students with current and appropriate coverage of the subject matter. New advances in process and operations constantly find their way to the manufacturing industry, and thus, our educational product must reflect these alterations as well. To accomplish this task, the NIU Department of Technology maintains a rigorous continuous improvement plan. The cornerstone of this plan is the assessment tools used, the mode in which the faculty is involved in completing the assessment loop, and ensuring that proper alterations to the programs, courses, and laboratories are made. The assessment loop which is used by the Department of Technology is relatively straight forward; however, multiple forms of assessment, both direct and indirect are employed at the various stages during the academic year. To complete the continuous assessment loop, the Department follows the following steps,

- Assess current objectives and outcomes for program and courses in a number of different modes
- Compile all of the results from all constituencies of the Department
- Share results with all faculty members in all emphases
- Close the loop – faculty and chair use assessment materials to update objectives and outcomes for emphasis and courses (Where needed)

The following section details all of the assessment tools that are used in the Departmental assessment process. It should be noted that the faculty utilize additional assessment means to modify and update their courses, however, the following modes are used by the department and shared with the entire faculty.

1). Student Learning Objectives

The following student learning objectives are used by the graduate program in the Department. Graduates of the program have the,

1. Ability to research technology concepts and obtain data sources
2. Ability to use advanced statistics and data analysis in developing research and industrial reports
3. Ability to manage, work in teams, and develop goals for a given industrial process
4. Ability to develop advanced industrial application skills

The above objectives are the core abilities that the department would like our students to achieve at graduation. The department has developed a full assessment profile to determine, from the various constituent groups, if they have been met and to what extent.



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2). METHODS

In order to collect the needed data to appropriately assess and analyze the programs in the Department of Technology, we utilize many different tools.

The department uses many different types of direct and indirect assessment tools, including

Indirect Assessment Tools

Tool	Usage	Time line	Responsibility
Alumni Survey	Assessment of the departmental graduate alumni, using both university tools and departmental tools. This survey looks at both programmatic objectives and alumni oriented questions.	End of Summer	Assessment Coordinator
Internship Survey	Departmental students completing the Internship (TECH 609) course are required to complete an internship survey. This tool examines skills needed. Two surveys are used, one for students and one for the student's supervisor.	End of each semester	Internship Instructor
Exit interviews	The Department administers exit interviews to graduates through an independent source. This instrument is important due to face-to-face presentation between a neutral party and the student (alone). The facilitator prompts students to expand on various issues and seek examples	End of each semester	Assessment Coordinator
Placement Information	The department obtains detailed information on student placement.	End of Summer	Assessment Coordinator

Direct Assessment Tools

Tool	Usage	Time line	Responsibility
Industry Input – Advisory Boards	Quantitative and qualitative analysis done in conjunction with industry and alums in formal discussions. Department faculty and chair meet with members of industry on the advisory boards.	Spring semester	Department Faculty and Chair
Capstone (Tech 600) Experience	During each semester, graduating graduate students take the Tech 600 (Graduate project) course. This analysis allows for a clear picture of how the objectives are implemented in the program.	End of each semester	Faculty coordinator of capstone projects course
Internship Assessment	At the end of each semester, the internship coordinator conducts an on-site visit of each student enrolled in the Internship (TECH 609) course. The on-site meetings are conducted between the faculty member, intern, and supervisor/employer. As part of the internship, the intern assembles a portfolio of work completed and daily tasks. The portfolio is assessed, as well as tasks that the intern has completed.	End of each semester	Internship Instructor



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The assessment activities are an integral element within the curricular planning and continuous improvement process for the Department of Technology. Departmental faculty members are involved in the curriculum development process. For this process to provide the optimal results, the faculty members must have numerous sources of input from which to make curricular changes and updates. In addition, the department as a whole must have a mechanism in place that allows for needed programmatic alteration. In both instances, there needs to be input detailing the changes that must be made.