

Outcome Assessment Report

Masters in Chemical Engineering Program

Academic Year: 2003/2004

Goals:

The goals of the Masters in Chemical Engineering (MS.ChE) program were developed by the departmental faculty. These goals are defined in the Program objective stated below:

“The Masters in Chemical Engineering program is designed to increase the students’ fundamental knowledge basis in the discipline beyond undergraduate level by incorporating contemporary aspects, to provide independent research experience under faculty guidance, and to solidify technical communication skills. The students are prepared for further study at doctoral level and/or for employment in industry.”

Outcomes:

The outcomes chosen by the departmental faculty parallels similar degrees offered in other disciplines in the College of Engineering. They aim to provide students with

1. A more general and fundamental understanding, beyond undergraduate level, of the principles underlying chemical engineering field of study as well as those related fields.
2. Familiarity with advanced methods of analysis and synthesis that are more powerful and more generally applicable than those taught at the undergraduate level.
3. The ability to independently read and understand the significance and limitations of the relevant literature.
4. The ability to formulate, initiate, and complete new and innovative research projects that contribute to the advancement of the field.
5. The ability to communicate effectively in written and oral form.

Research/Assessment:

The program uses a survey, “Assessment of Student Academic Achievement Objectives,” to assess the outcomes. This anonymous survey is filled by all members of the thesis/project committee after the defense.

In addition, the MS program and its contents, particularly electives to be offered to cover contemporary aspects, are routinely discussed in faculty meetings.

Findings/Analysis:

The survey results are compiled and distributed to the faculty for their consideration. An example compilation is attached to this document. The results are discussed at the Annual Departmental Retreat for consideration of any actions to be taken to remedy deficiencies if identified.

Actions:

No deficiency has been identified through the survey as yet. Therefore, no specific actions have been taken with respect to the outcomes assessment.

Over the past few years, the faculty have decided to enrich the program by incorporating new subject matters addressing contemporary issues in biomedical engineering and fuel cell technology.