

School of Industrial Engineering and Management

IEM Research Standards and Guidelines for MS Thesis

The student's research will be judged by the standards provided in the following paragraphs.

- The research should provide a challenging educational experience for the student. It should emphasize creativity, independent action and learning, research methodology, and a scholarly, professional approach.
- The research should reflect a level of accomplishment that could not have been achieved without graduate study. It must draw directly upon advanced learning and demonstrate an acceptable command of that knowledge.
- The research should result in findings which extend or improve understanding of the bodies of knowledge relevant to Industrial Engineering and Management. The effort may be oriented toward developing new or improved methods for solving problems. Unique applications for modifications of known methods may be developed. Alternatively, the effort may involve assimilation of extensive and disparate information to provide an improved understanding of a given body of knowledge.
- The research should possess the major characteristics of the scientific method, namely objectivity and reproducibility. The effort should conform to the guidelines for Research Methodology. The research hypotheses (for classical research) or goals and specific objectives (for developmental research) should be quantifiable, measurable, and testable.
- The scope of the research should be such that it requires the time and effort of at least 6 credit hours of graduate level coursework for the thesis. The 6 credit hours of thesis will be accomplished over the last two semesters in the program and documented progress will be required at the end of the first semester of enrollment.
- The first semester of thesis enrollment (3 credit hours) will be used to identify the topic, develop the proposal and create a detailed plan. The proposal should be submitted to the committee two weeks before the proposal meeting. The proposal usually consists of the first three or four chapters of the thesis - introduction, literature review, problem statement/objectives/tasks, and approach and preliminary results (if any). These requirements must be completed with a grade of SR prior to enrollment in the remaining 3 credit hours.
- The last semester of thesis enrollment (3 credit hours) will be used to complete the research, prepare the documentation and make the oral presentation.
- No more than 6 credit hours of research will count towards the graduate Plan of Study. Any additional research credits will be taken on a pass/no pass basis.
- The thesis should demonstrate a high degree of proficiency in written communication of research results. The thesis should conform to Graduate College requirements in organization and format and must be submitted prior to the date specified by the Graduate College in the semester of anticipated graduation.
- The student must orally defend the research effort in terms of its content as well as its compliance with the above standards to the advisory committee. The thesis defense must be completed prior to the date specified by the Graduate College in the semester of anticipated graduation. The advisory committee will notify the Graduate College of the results of the oral defense of the thesis on the Thesis/Dissertation Oral Defense form.