This document provides definitions and rules relative to research-projects, theses and comprehensive exams to be completed by students in the graduate programs in the IMET Department.

**Research-Project**

A research-project (or project) is an open-ended endeavor that involves an in-depth study of a topic related to the student’s discipline with scope beyond what is possible in a regularly offered course. This will include a literature survey to learn what is already known about the topic and possibly extend the knowledge through further study, research and experimentation. Projects will be for three hours of credit. A project could also involve solving a real world problem that would justify in scope and depth granting of three hours of graduate credit. In such situations however the student will seek a solution to a class of problems than just restricting to one on hand. The procedure would be as follows:

1. The student must have completed a minimum of 15 hours of the course work towards the masters degree, have unconditional status at the time of registration for the project, and have at least 3.20 GPA. (This requirement can be waived in special cases if the project advisor so recommends.)
2. The student will select an advisor, who should be a member of the IMET graduate faculty, and who will agree to serve as the advisor for the project, and develop a proposal.
3. The proposal should be defended before a panel of at least two members of the graduate faculty, one of them being the advisor. A project may have a second advisor and if so, the second advisor should be part of the panel for defense of the proposal.
4. The proposal package must be submitted no later than five business days prior to the expected date of registration. The proposal should contain a description of the problem to be addressed; a review of literature sufficient to demonstrate that, while some work has been done, new solution areas for the problem are available (i.e., a study of project background and a feasibility study for the project); a description of the activities to be undertaken; expected results; approximate dates and times required for the tasks in the project; resources required; and a budget if needed.
5. After a successful defense of proposal, which requires consensus of the panel, the departmental approvals will be obtained to register in the course.
6. The final report of the project must be defended before a panel of at least two members of the graduate faculty. The student must submit copies of the final report to the members of the panel no later than 5 working days prior to the scheduled defense. The student should also make an additional copy available to the Department. The presentation should be professional and of the order of a national conference (e.g. IIE, SME, ASEE, INFORMS, etc.) The length would be from 20 to
35 minutes with clear, well prepared audiovisual aids. The Q&A session that follows the presentation will constitute the “oral comprehensive” exam for the student.

7. The defense of the final report should be announced to the rest of the faculty and students in the department through fliers posted on the department’s notice boards at least two days before the date of defense. In as much as the defense is an exam, friends or family from outside the departments will not be invited except by special permission of the advisor.

8. The final report should be entered as a working paper in the department files.

9. The project is normally expected to result in publishable work.

10. The project committee will meet in confidence for final evaluation and grading of the work. The project advisor will report the grade to the registrar.

**Thesis**

A thesis is distinguished from a research-project by the fact that the problem being researched is of greater scope and significance and should result in, or lead to, work publishable as an article in a refereed journal. In addition to the following rules, a thesis format must follow requirements of the graduate school.

The number of credit hours for a thesis would normally be 6; hence, the work must be significant in content including a significant review of literature. A thesis will require presentation and defense of a proposal and the procedure will be as follows:

1. The student must have completed a minimum of 15 credit hours of masters work, have unconditional status at the time of registration for the thesis, and have at least 3.5 GPA. (This requirement can be waived in special cases if the thesis advisor so recommends.)

2. The student will select a thesis advisor, who should be a member of the IMET graduate faculty and who will agree to serve as the theses advisor, and develop a proposal.

3. The proposal must be defended before a panel of at least three members of the graduate faculty, as selected jointly by the advisor and the student. A thesis may have a second advisor and if so, the second advisor should be part of the panel for defense.

4. The proposal package will be submitted no later than five business days prior to the expected date of registration. The proposal should contain a description of the problem to be addressed; a review of literature sufficient to demonstrate that, while some work has been done; new solution areas for the problem are available (i.e., a study of topic's background and a feasibility study for the research); a description of the activities to be undertaken; expected results; approximate dates and times required for the tasks in the project; resources required; and a budget if needed.

5. After a successful defense of proposal, which requires consensus of the panel, the departmental approvals will be obtained to register in the course.

6. After defense of the proposal, a thesis committee consisting of at least three
members will be formed. The committee will include the thesis advisor and at least one other member from the graduate faculty of the department. Members of the thesis committee will be nominated by the thesis advisor in consultation with the student.

7. Upon completion of the thesis, a comprehensive defense in front of the thesis committee, other members of the faculty, and graduate students, is required. The student must submit copies of the final report to the members of the thesis committee no later than 7 working days prior to the scheduled defense. The student should also make an additional copy available to the Department. In order to secure adequate time to collect required signatures after the defense, the defense should be scheduled at least 3 weeks prior to the commencement.

8. The defense of the final report should be announced to the rest of the faculty and students in the department through fliers posted on the department’s notice boards at least two days before the date of defense. The presentation should be professional and of the order of a national conference (e.g. IIE, SME, ASEE, INFORMS, etc.) with well prepared audiovisual aids. The Q&A session that follows the presentation will constitute the “oral comprehensive” exam for the student. In as much as the defense is an exam, friends or family from outside the departments will not be invited except by special permission of the advisor.

9. Three copies of the thesis must be submitted to the graduate school no later than two weeks prior to commencement. The thesis committee will determine the grade earned on the thesis.

10. The thesis is normally expected to result in a journal publication.

11. The final defense would normally be for 30 minutes for presentation followed by adequate time for cross examination by the thesis committee, which constitutes the oral comprehensive exam.

All-course option

When a graduate student does not meet the GPA requirements to pursue a research project or thesis option, or cannot find a faculty member interested in the research topic the student wants to pursue, the All-course option becomes the viable avenue for graduation. In this option, the student has to complete the total credit hour requirement by taking all courses and pass a comprehensive exam.

A student interested in research will start investigating opportunities for research by talking to faculty members in the IMET Department at about the time he/she has completed 15 hours of course work. At about this time, the student would know which option he/she is going to pursue. If a student has not found a project or thesis topic and a faculty member to act as advisor by the time he/she completes 21 hours of course work, he/she automatically defaults into the All-course option.

When a student chooses the all-course option, the graduate coordinator of the program will arrange for the comprehensive exam in the semester prior to graduation. The comprehensive exam will consist of two parts, one a written exam and the other an oral exam. The exam details, which will be specific to each student will be made known to the student at least a month prior to taking the exam.