

FLORIDA INSTITUTE OF TECHNOLOGY
AEROSPACE ENGINEERING PROGRAM

Graduate Program Policies for M.S. Degree

1. Introduction

The Graduate School Policy Manual and the University Catalog detail the rules that apply to the university as a whole with regard to graduate programs, as well as departmental-specific requirements. The manual and the catalog are available on the Internet at <http://www.fit.edu/>. The purpose of this document is to describe these policies as they relate to the Aerospace Engineering graduate programs and to make clear the departmental policies and procedures specific to the program.

2. M.S. in Aerospace Engineering: Thesis Option

A student pursuing the thesis option is expected to conduct a research or analysis project in coordination with his or her research advisor. The thesis can be primarily analytical, computational, experimental, or some combination of the three. In each case, the student must demonstrate the ability to read the appropriate engineering literature, to learn independently, and to be creative as well as express themselves well technically, both orally and in writing.

2.1 Committee

Each student shall have a committee consisting of at least three members of the Graduate Faculty. One member of the committee is the student's research advisor (who will chair the committee) and at least one other member must be from outside the MAE department. An approval from the Office of the Graduate Programs is required if any person from outside the Graduate Faculty needs to be included in the committee.

2.2 Degree Requirements

To earn a M.S. degree in aerospace engineering, the student must complete *at least* 30 semester credit hours beyond the bachelor's degree. For the thesis option, these 30 credit hours are broken down as follows:

Core Specialization Courses	9 credit hours
Mathematics	6 credit hours
Thesis	6 credit hours
Electives	9 credit hours

The core specialization courses are listed in the catalog for each specialization area. The number of thesis hours listed are the *minimum* number of credit hours required. It will be up to the student's research advisor and committee to determine whether additional thesis credit hours are needed to satisfactorily complete the thesis project. Once the student begins registering for thesis, he or she *must* register for thesis in each successive semester (including summer) unless the student obtains a signed waiver for each semester that he or she does not register for thesis and submits it to Office of Graduate Programs.

2.3 Program Plan

In accordance with the University Catalog, “[p]rior to the completion of nine credit hours, the student must submit for approval a master’s degree program plan to indicate the path chosen and the specific courses to be taken.” This program plan is completed in consultation with the student’s advisor. Every student is encouraged to take a course in technical communications to develop the required skills in scientific writing and oral presentation.

2.4 Thesis

The culmination of the thesis project is a written thesis. The written thesis must adhere to strict formatting guidelines that can be obtained from the Office of Graduate Programs. The student must provide five copies of the thesis for binding to the Office of Graduate Programs. The student is responsible for printing and binding charges.

2.5 Thesis Defense

The student must present their work to his or her committee during a two-hour defense. The defense must be scheduled at least two weeks before it is given to allow for room scheduling and to announce it to the entire Graduate Faculty and the committee. The defense may not be scheduled during the final week of classes nor during final exam week. Only members of the Graduate Faculty and/or committee may be present during the defense period. Prior to the defense, the student is expected to provide a draft copy of his or her thesis to each member of the committee, allowing enough time for the committee members to read it and make comments. During the defense, the committee may ask the student questions about the research during or after the presentation. The committee may also request changes to the written thesis. Upon successfully passing the defense to the satisfaction of all committee members and making all needed changes to the thesis, each committee member and the MAE department head will sign the signature page in the thesis. The thesis (and all copies) are then presented to the Office of Graduate Programs for binding.

3. M.S. in Aerospace Engineering: Non-Thesis Option

A student pursuing the non-thesis option will earn his or her degree through coursework alone, totaling 30 credits. A thesis is not required, however the student is expected to take a comprehensive examination at the completion of the required coursework. The exam may be written, oral, or the combination of the two, as determined by the committee. The topics for the comprehensive exam will be chosen from the courses taken by the student in consultation with his academic adviser (see Section 3.4).

3.1 Committee

Each student shall form a committee consisting of at least three members of the Graduate Faculty. One member of the committee is the student’s academic advisor (who will chair the committee) and at least one other member must be from outside the MAE department.

3.2 Degree Requirements

To earn a M.S. degree in aerospace engineering, the student must complete *at least* 30 semester credit hours beyond the bachelor's degree. For the non-thesis option, these 30 credit hours are broken down as follows:

AE Specialization Courses.....	9 credit hours
Mathematics.....	6 credit hours
Electives.....	15 credit hours

The AE specialization courses are listed in the catalog for each specialization area. Ideally, the elective courses would be chosen primarily from the other specialization areas, though this is not required. The student should consider, however, that the comprehensive examination will cover topics from outside the student's specialization. See section 3.4 below.

3.3 Program Plan

In accordance with the University Catalog, “[p]rior to the completion of nine credit hours, the student must submit for approval a master’s degree program plan to indicate the path chosen and the specific courses to be taken.” This program plan is completed in consultation with the student’s advisor.

3.4 Comprehensive Examination

In accordance with the Graduate Policy Manual, the student will schedule with his or her committee the comprehensive examination. This examination must be scheduled at least two weeks prior to the exam time and no earlier than the 10th week of the semester. Examinations cannot be scheduled during the final week of classes or during final exam week. The first version of the comprehensive exam is *written*. It is to be prepared by the student’s committee. There will be three sections, each of which is to be written by a different committee member. One of the sections must be on the subject of mathematics. Each of the other two sections must cover one distinct area of specialization from the three areas that the Aerospace Program supports, as described in the University Catalog. The student should be prepared to answer questions based on courses the student has taken as part of his or her degree program as approved by the committee. The student should also be prepared to answer questions of a fundamental nature, which might be *prerequisite* to the graduate courses mentioned earlier. Individual questions may be opened-book or closed-book, at the discretion of the author of the section.

There will be three possible grades on the initial written exam: (1) pass; (2) fail, with the option to take a second *written* exam at the discretion of the committee; or (3) fail with the option to take an *oral* exam, at the discretion of the committee.

What happens after the student fails an initial written exam will be in accord with the detailed provisions of the part of the Graduate Policy Manual titled FINAL PROGRAM EXAMINATIONS. Note the following excerpt: “Under no circumstances will a student be permitted to continue to register in the same major, or to attempt again to pass the Final Program Exam in the same major, after the exam has been failed three times.”