M.S. Degree Requirements and Policies

Admission Requirements
For the M.S. degree, applicants should have a B.S. in aerospace engineering or in a related field (i.e., other engineering disciplines, physics, mathematics, etc.). The requirements are the same for admission into the thesis and non-thesis options of the M.S. program. At the time of application to the master’s program, the student must specify his/her option (thesis or non-thesis) of choice.

Degree Requirements
When applying to the Master of Science degree, students must specify their intention to pursue either the thesis or non-thesis M.S. option. Both the thesis and non-thesis options require the completion of 30 graduate credit hours. Students in the thesis option must complete 12 credits of thesis research (AE 599), whereas students in the non-thesis option may complete up to 8 credits of directed research (AE 598). The result of the research credits (AE 599) in the thesis option must be a completed master’s thesis. The number of directed research credits (AE 598) completed in the non-thesis option can range from 0 to 8.

In the thesis option, the distribution of credits is as follows:
- 6 graduate credits, with 2 credits in each of the three AE Core Areas of Study
- 12 graduate credits of thesis research (AE 599)
- 8 graduate credits of free electives in or outside AE
- 4 graduate credits in applied mathematics (ME 5000, ME5001, or any other course with the approval of the AE Graduate Committee)

In the non-thesis option, the distribution of credits is as follows:
- 18 graduate credits in AE courses, with a minimum of 2 credits in each of the three AE Core Areas of Study (includes a maximum of 8 credits of directed research—AE 598)
- 8 graduate credits of free electives in or outside AE
- 4 graduate credits in applied mathematics (ME 5000, ME5001, or any other course with the approval of the AE Graduate Committee)

In either option, all full-time students are required to register for the zero-credit graduate seminar (AE591) every term and must attend a minimum of one seminar per term in order to receive a Pass.

Academic Advising
The schedule of academic advising ensures that students are well advised throughout the program.
- Temporary Advisor: upon admission to the M.S. program (thesis or non-thesis), each student is assigned or may select a Temporary Advisor. Arranges an academic plan covering the first 8 credits of prior to the first registration.
- Academic Advisor: elected by a student prior to registering for more than 8 credits. Arranges an academic plan covering the remaining course of study.
- Thesis Advisor (for thesis option students): elected by a student prior to registering for more than 8 credits. Arranges the thesis topic and the academic plan covering the remaining course of study.

Thesis Defense
Each student in the thesis option must defend his/her research during an oral defense, which is administered by the Thesis Advisor and a representative of the AE Graduate Committee. The defense is open to public participation and consists of a 30-minute presentation by the student followed by a 30-minute open discussion. At least one week prior to the defense the Thesis Advisor and an AE Graduate Committee Representative must receive a copy of the thesis. Public notification of the defense must be given by the AE program office. The Thesis Advisor will determine the acceptability of the student’s thesis and will determine the student’s grade.
Changing M.S. Options
Students in the non-thesis M.S. option may switch into the thesis option at any time by notifying the AE Graduate Committee of the change, provided that they have identified a Thesis Advisor and have worked out a Plan of Study with their thesis advisor. Subject to the Thesis Advisor’s approval, directed research credits (AE 598) earned in the non-thesis option may be transferred to thesis research credits (AE 599) in the thesis option.

Any student in the thesis M.S. option may request a switch into the non-thesis option by submitting the request in writing to the AE Graduate Committee. Before acting on such a request, the Graduate Committee will require and seriously consider written input from the student’s Thesis Advisor. Financial aid given to the thesis-option students who are permitted to switch to the non-thesis option will automatically be withdrawn. Subject to the approval of the AE Graduate Committee, a maximum of 9 credits of thesis research (AE 599) earned by a student in the thesis option may be transferred to directed research credit (AE 598) in the non-thesis option.