



MSAEM Culminating Experience

Students pursuing the MSAEM program must pass a final comprehensive examination representing a "culminating" or "capstone" experience: <https://catalog.ua.edu/graduate/about/academic-policies/degree-requirements/#mastersdegreestext>. The comprehensive examination is a culminating experience in which the student is expected to integrate prior learning.

MSAEM students have three options:

- **Plan I students:** complete and defend an MS Thesis
- **Plan II students:**
 - a. complete and submit a report on an approved research project
 - b. complete and submit a report on an approved work-related project
- **PhD students applying for an MS en-route degree:** pass the qualifying exam

Further information about the research and work projects of the second option:

The **research project** is an in-depth study of a topic that must be mentored by an AEM faculty member or a department-approved research advisor in which the student selects based on mutual research interests between the student and the mentor. The project is not as comprehensive as a thesis and does not require a supervisory committee. The project must integrate knowledge and concepts from more than one of the program courses. Students may, but are not required to unless it is their last and only course to complete the program, enroll in up to three hours of AEM 593/4 Special Projects while working on their culminating experience research report. Their advisor would serve as the course instructor. At the start of the culminating experience (usually initiated during the last year of study), the student and advisor must document the type and depth of culminating experience product necessary to pass. If enrolled in AEM 593/4, these details are to be listed in the syllabus. Examples of past products include theoretical investigations and literature reviews relating to recent technology developments, software development and supporting user documents, and presentation and analysis of results from computational studies, experiments, or flight tests. If planning on enrolling in AEM 593/4, then the advisor must open a section at least three weeks prior to the start of the semester.

The **work project** is an in-depth report detailing with specific examples, modeling, and analyses on how AEM coursework and concepts from more than one MSAEM course has been used and integrated into to work-related projects or investigations. This option is targeted towards MSAEM students that are currently employed in the engineering and research environment or have completed an internship while in the MSAEM program. Like the research project, an AEM faculty member or department-approved advisor must evaluate and approve the report. Students must request an evaluator prior to starting the report. A faculty member from one of your prior courses can be a potential evaluator.

For either project, the student must have completed at least 18 hours of coursework prior to submitting the written report for the culminating experience. If completing the culminating experience during the last semester or for AEM 593/4 credit, **a draft of the written report should be submitted to the advisor three weeks before the end of the semester to allow time for feedback, revisions, and submission of the Capstone Project Form.** A common, but not required, format for the report is the AIAA conference paper format. Failure to submit a report on time could postpone your graduation date.

For more information about the culminating experience, contact the Graduate Program Coordinator.