RIT | College of Engineering Technology
Department of Manufacturing and Mechanical Engineering Technology

FAQ – RIT MS Manufacturing & Mechanical Systems Integration
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Note: The university governance library, college policies, and case-by-case decisions by the RIT administration supersede information here. Answers to these FAQs are an attempt to consolidate information for students in the Manufacturing & Mechanical Systems Integration program, but these FAQs are not RIT policy. Refer to the relevant RIT policies and program curriculum requirements as published in the university's Graduate Bulletin for final authoritative answers.

Capstone Project/Thesis

Frequently Asked Questions

1. What is an "exit strategy?" **Answer:** The phrase "exit strategy" means the specific track a student will take to complete academic program requirements. In the MMSI-MS program, there are three exit strategies: Comprehensive Exam, Capstone Project, and Thesis. Most students choose the Capstone Project exit strategy. The decision between a thesis and a capstone project should be made with the student's faculty advisor.

2. What do I need to do to enroll in capstone or Thesis?
Answer: First you need to identify a faculty advisor and a project by meeting with faculty. Once you have identified your capstone or thesis advisor, you need to complete and submit the "Capstone Project and Faculty Advisor Identification Form" available on the MMSI website or from the department staff. After this has been signed by your faculty advisor and the graduate director, you can be enrolled in Capstone or Thesis by the MMSI academic advisor or MMSI staff.

3. When should I start my capstone or thesis project?
Answer: It is never too early to start meeting with faculty to research available projects. To stay on track to graduate on time, students should identify their faculty advisor ideally by their second semester in the program.

4. What information is needed to obtain approval of a capstone project or a thesis?
Answer: Any RIT faculty can serve as a faculty advisor for your project or thesis, but in the case of a thesis (i.e. not a project) a member of the MMET department faculty must be on your thesis committee. You are encouraged to review the Capstone and /or Thesis overview documents.

5. After I finish and successfully defend my thesis (not capstone project or comprehensive exam), is there anything more I need to do?
Answer: Yes – and it is important to take the final steps as soon after your defense as possible. After your thesis committee approves your defense, you then need to (1) complete the university publication requirements by posting your thesis into ProQuest and (2) inform the RIT registrar of the title of your thesis for listing on your transcript record. Go to https://infoguides.rit.edu/thesis-services to learn about the details for submission of your thesis. You will find detailed information about the requirements and process for submitting your thesis to ProQuest. If you do not follow through on ProQuest submission and providing the title requirements, the university will not issue your degree until the end of the semester after these are satisfied.

6. What is a project/thesis "continuation?" **Answer:** You need to be making continual and satisfactory progress on your project/thesis after registering for it. In the event that your work will continue past the semester in which you initially registered, you will need to register for a continuation during the next fall, spring or summer semester. Contact your advisor to register you

on SIS when your registration window for the given academic term opens. Be you get registered for the correct continuation! You MUST have been initially registered for an approved Thesis/ Project during the preceding term.

If the continuation is the only item for which you are registered and if you are an international student, you may need to request a Full-time Equivalency (FTE) status to remain in compliance with the terms of your visa. First, confer with International Student Services to see if you need an FTE. If so, you can request FTE status through your department academic advisor. Check with International Student Services to verify exactly what you need.

7. Is there a time limit on completing my degree requirements?
Answer: Yes. See https://www.rit.edu/academicaffairs/policiesmanual/policies/governance Section D12.0

8. Is there a limit on the number of thesis/project continuations after my first semester registered for the thesis/project? Answer: Yes. Sometimes a faculty advisor requires work to be completed within a set time frame ("Time-sensitive"), and this requirement is specified on the Project/Thesis Approval Form the student completes and signs as part of the thesis/project approval. If the work is not Time-sensitive, the MS-MMET program tries to be flexible to accommodate student needs, but we consider that a maximum of three continuations is the most any student would need to complete their thesis/project unless there are extenuating circumstances. Most students can finish in one or two semesters if they are making satisfactory progress. For international students, U.S. regulations require that a student make continual and satisfactory progress toward their degree. Three semesters of continuation are the general estimate used by the MS-MMET program to assess this requirement for all students. An international student who takes more than three continuations may need to show reasonable cause for the delay if required by RIT, ISS or the U.S. immigration authorities.

9. A continuation costs money. Do I really need it or can I just ignore it and hand in my project/thesis when it is ready? Answer: University policy D12.0 states the requirements for project continuations and thesis continuations. If you previously registered for project/thesis you must register for continuation every semester afterward, even summer semester. Registration for coop or other course work does not negate the requirement to register for continuation. Each continuation carries a tuition charge of 1 credit. However, a continuation in summer semester is automatically free, and you may request a one-time waiver for the first non-summer semester. If the project/thesis is the only remaining task and you plan to remain in the United States, you will need to have a bona fide reason to extend your stay. Working toward completion of your project/thesis and making satisfactory progress can be a justified reason. However, you must be registered for a continuation and any other final course work in the semester you anticipate completing all degree requirements, including your project/thesis. The RIT registrar will not certify a degree unless the candidate was registered for their last course(s), a project/thesis that they completed, or a project/thesis continuation during the term in which it was completed. Refer to University policy D12.0 for the specific information about continuations.

10. What is the difference between a Capstone and a Thesis?
Answer: Thesis and Capstone are similar but they also have fundamental differences.
The thesis and project are similar in a few ways. First, they are both supposed to demonstrate that you have learned something, and that you have the ability to learn new things. Second, both the thesis and capstone project should draw on and integrate the knowledge that you gained in the courses that you took for your degree. Third, both the thesis and project align your program concentration and department research interests.

CAPSTONE
The capstone project may answer a question of practical importance, - to develop, test, and evaluate a solution. A capstone project differs from a thesis as the capstone project does not requiring original research. Instead, the capstone should aim to demonstrate the ability to apply what was learned in the MMSI courses to a problem utilizing original analysis (qualitative, quantitative, or both) of a specific situation, to advance understanding of the topic. Projects are not expected to be earth shattering, or potentially even original. They are used to demonstrate that you can draw together your classroom experiences into an applied project.

A student who selects the Capstone Project Track enrolls in Capstone Project (MFET 797) during their final semester in the program. This track includes two technical electives.

THESIS
In contrast, the goal of a thesis is to become a "mini-expert" in a given field by researching the answer to a question and/or exploring the impact of an assumption (your hypothesis).
This exploration then leads to some statement of fact (thesis). You (and your thesis advisor) come up with a question/assumption that is then tested. You would then develop and conduct experiments to either prove or disprove the hypothesis or otherwise using an appropriate methodology. This would then lead to one or more conclusions regarding validity of your hypothesis. In a thesis, you demonstrate your knowledge through research, investigation, deduction, reason, and experimentation. Note that the "experimentation" part is not the goal. It is just a tool to investigate your thesis. The thesis should answer a question, which contributes to new knowledge and is generalizable beyond a single setting. The thesis should be analytic, should systematically analyze data, and should develop and make appropriate inferences based on the analysis.

With a thesis, your work is expected to be original. You are contributing knowledge to the field. As such, your work should be publishable (even though you may not pursue actual publication). That means your work should stand up to review by practicing professionals in the field.

Because of the increased time needed to complete a thesis, a student who selects the Thesis option enrolls in Thesis Planning (MFET 788) their third semester and Thesis (MFET 790) their final semester. The thesis track includes one technical elective.