

MDS Capstone Guidelines

The requirements of the Master's of Data Science (MDS) program include a capstone course. There are essentially two approaches for completing the capstone requirement.

The first approach is to take one of the approved courses: STATS 504, BIOSTAT 699, and SI 699-xx5. Special Topics courses, such as CSE/ECE 598 and STATS 700, can also serve as capstone if approved by submitting the course syllabus to your MDS faculty advisor to have signed and uploading it to the [MDS Capstone Exception Approval Form](#).

The second approach is to get pre-approved to conduct a research project with a U-M faculty advisor who works extensively with data. For example, BIOSTAT 610, CSE 599, SI 691, and STATS 750 can serve as capstone if pre-approved through the process below.

1. You need to write a proposal and get it pre-approved by both your research advisor and your assigned MDS faculty advisor. The proposal should contain the following information:
 - a) Describe the overall project you will be working on.
 - b) The project must have a data science component. Zoom in on that and describe the work involved in more detail; for instance, maybe you will be writing a code, proving a theory, developing a new data platform, analyzing a large data set, etc.
 - c) Provide an estimate of how much work per week will be involved.
 - d) Describe the deliverables if any.
 - e) The project must be supervised by a U-M faculty member that you identify on your own from any academic department. The faculty must have expertise (e.g., in terms of their teaching or research) in data science. Provide some information in that regard and copy (cc) the faculty on your email to your MDS advisor requesting the pre-approval.
2. Once the proposal is approved, convert the proposal into a PDF and have your MDS faculty advisor add their signature. You will upload the signed proposal to the [MDS Capstone Exception Approval Form](#).
3. You will then register for the course (for 3 - 4 credits) with the designated faculty member (research advisor) to fulfill the capstone degree requirement.

MDP Option for MDS Capstone

U-M features a [Multidisciplinary Design Program \(MDP\)](#) that you may apply to and propose to fulfill the MDS Capstone requirement. You may filter by projects that are designated as suitable for the MDS Capstone. If you are accepted to a MDP project, you will enroll in ENGR 555 for a total of 4 credits over two semesters, starting with the Winter semester and ending with the Fall semester. Following the process above, you will need to submit your Capstone Proposal for approval after the Winter semester to complete your Capstone in the Fall semester.