DATA SCIENCE M.S.

General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (https://catalog.umt.edu/graduate/school-policies/).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

Master of Science - Data Science

- At least half of the credits required for a degree (excluding a combined total of 10 credits for thesis or research) will be at the 500 or 600 level. (In no case, however, will this rule require more than 18 credits of 500- or 600-level work.) To apply this rule to the course of study, subtract the number of thesis and research credits completed (up to 10 only) from the minimum number of credits required for the degree.
- Half of the remaining credits must be in courses at the 500 or 600 level.
- The student and the student's advisor design a program of studies for each student. Each year the student must complete (or update) an advisor-approved Program of Studies form which is to be kept on file in the Mathematics office. A revised form must be filed if there are any changes to the student's program during the year.
- After the first year students will take a comprehensive exam on material from M 540, M 561, and M 562. It is structured in two parts, written and preliminary.

Course Requirements

Code	Title	Hours
Core Course Requirements		
Complete all of the following courses:		
M 540	Numerical Methods for Computational & Data Science	3
M 561	Advanced Data Science Analytics	3
M 562	Advanced Theoretical Big Data Analytics	3
M 567	Advanced Big Data Analytics Projects	3
M 600	Mathematics Colloquium	1
M 610	Graduate Seminar in Applied Mathematics	2
or STAT 640	Graduate Seminar in Probability and Statistics	
Complete one course in CSCI (see courses below)		3
Additional Course Requirements		
Complete additional credit requirements with the following courses:		4-10
CSCI 444	Data Visualization	
CSCI 547	Machine Learning	
STAT 421	Probability Theory	
STAT 422	Mathematical Statistics	
STAT 542	Applied Linear Models	
STAT 545	Theory of Linear Models	
A minimum of 6 credits of electives drawn from courses offered by Mathematical Sciences, CSCI, and the School of Business Administration. These courses must be approved by the advisor.		6
A minimum of 2 research credits is required. A final presentation on a research project must be given in the Applied Math & Statistics seminar.		2
Total Hours		**30-36**