Master of Science in Applied Mathematics

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Introduction

These guidelines are intended to help familiarize graduate students in the Master of Science (M.Sc.) in Applied Mathematics program with the policies governing this degree program. All the guidelines apply to both the on-campus M.Sc. degree and the online M.Sc. degree, unless otherwise specified. This material supplements the graduate school requirements found on the Graduate Student Resources page and on the Master's Degree Policies page. Students are expected to be familiar with these procedures and regulations.

Most full-time students obtain the M.Sc. degree in one year. Some full-time students spend two years, by taking more courses than the minimum requirements, or by writing a thesis. Part-time students generally complete it over a longer period of time.

Requirements

The M.Sc. Program is intended to give the student a working knowledge of several areas of Applied Mathematics, which may include a specific area of application, in order to prepare for a productive career in industry or elsewhere, or to prepare the student for continuing towards a Ph.D. degree. The Graduate School and the Department require a minimum of 36 credits for the M.Sc. degree. The following are the requirements to be met:

- Core course list: Students are required to take all three of AMATH 567 (Complex Analysis), AMATH 568 (Ordinary Differential Equations) and AMATH 569 (Partial Differential Equations). Substitution of any of these courses with AMATH 501, AMATH 502 and AMATH 503, respectively, is permitted. Either AMATH 581 (Scientific Computation) or AMATH 584 (Applied Linear Algebra & Introductory Numerical Analysis) is also required.
- A minimum of 24 credit hours must be taken from the AMATH Curriculum.
- M.Sc. students must take a minimum of 9 numerically graded courses, including the core courses as listed above. The overall GPA in these courses must be at least 3.2 on a 4.0 maximum scale. Each course must be a minimum of 3 credits. One of these courses may be substituted by a total of 4 credits worth of AMATH 500 (seminar/journal club) or AMATH 600 (independent reading). Any courses taken outside of the AMATH Curriculum must be approved by the GPA or GPC.
- At the start of every academic year, the program of study of any on campus or online M.Sc. student must be approved by the graduate program coordinator or advisor, so as to ensure that studies progress satisfactorily and degree requirements are met. Students should use the Masters Degree Program Plan Form for this.

It is the student's responsibility to make certain that all deadlines set by the Graduate School are met in order to graduate at the expected completion of study.

Students who wish to be excused from any of these requirements should petition the department.
Satisfactory performance and progress (MS)

At all times, Master's students need to make satisfactory progress towards finishing their degree. Satisfactory progress in course work is based on grades. Students are expected to maintain a grade point average of 3.2/4.0 or better.

The Graduate School rules regarding satisfactory progress are detailed in Graduate School Memorandum No. 16. The Department of Applied Mathematics follows these recommended guidelines of the Graduate School including an initial warning, followed by a maximum of three quarters of probation and one quarter of final probation, then ultimately being dropped from the program.

We encourage all students to explore and utilize the many available resources across campus.

Expected academic workload

Our Master's students are expected to register for a full course load, typically 3 numerically graded courses totaling approximately 12 or more credits, enabling graduation in one academic year. Students who do not intend to register for a quarter must seek approved academic leave in order to maintain a student status.

Thesis option

Not available for the online program

Students in the on-campus M.Sc. program may choose to complete a M.Sc. thesis. The requirements to do so are in addition to those mentioned above. For students in the thesis option, an oral defense of the M.Sc. thesis is required. Additional details may be found here.

Admission to the Ph.D. program

If a student in the M.Sc. Program is interested in continuing on towards a Ph.D. degree in the department, he/she is expected to formally make his/her intention known to the Graduate Program Coordinator by January 16 of the year before they intend to start the Ph.D. program. The Graduate Program Coordinator and the AMATH faculty will consider their application together with those of other applicants to the Ph.D. program. Students will be notified of their admission status (including possible financial aid) no later than April 15.

Careers

Career resources, as well as a look at student pathways after graduation, may be found here.