



Department of Mathematics and Statistics

Major in Mathematics with a Concentration in General Mathematics Effective Fall 2024

Purposes of the Major

The Department of Mathematics and Statistics offers a major in Mathematical Sciences with a concentration in **General Mathematics**. The goals of this program are to provide students with

- broad-based and coherent preparation in the various disciplines that constitute the mathematical sciences and,
- considerable flexibility among upper division course choices to meet the needs of those students with diverse mathematical interests.

The Department also offers a **minor** in Mathematics.

Advising Information

This document, **Major Requirements**, summarizes the departmental course requirements for graduating with a Bachelor of Science degree in mathematics with general mathematics concentration.

You are strongly encouraged to talk to one or more of the **faculty advisors** in the area of mathematics (listed below) as you plan your academic program.

Further information about current course offerings, as well as email addresses and office hours for faculty advisors, is available through the Department’s Web site at:

<https://msudenver.edu/math>

Faculty Advisors in the General Concentration

| | | | |
|----------------------|---------|--------------|-------------------------|
| Dr. Shahar Boneh | SI 3018 | 303-615-0740 | bonehs@msudenver.edu |
| Dr. Henc Bouwmeester | SI 3016 | 303-615-0758 | hbouwmee@msudenver.edu |
| Dr. John Carter | SI 1050 | 303-615-0726 | jcarter11@msudenver.edu |
| Dr. Diane Davis | SI 1064 | 303-615-0730 | ddavi102@msudenver.edu |
| Dr. Benjamin Dyhr | SI 3030 | 303-615-0749 | bdhyr@msudenver.edu |
| Dr. John Ethier | SI 3017 | 303-615-0739 | jethier@msudenver.edu |
| Dr. Brendan Fry | SI 1054 | 303-615-0729 | bfry2@msudenver.edu |
| Dr. Don Gilmore | SI 1065 | 303-615-0738 | gilmored@msudenver.edu |
| Dr. Nels Grevstad | SI 1053 | 303-615-0728 | ngrevsta@msudenver.edu |
| Dr. Chris Harder | SI 3028 | 303-615-0748 | harderc@msudenver.edu |
| Dr. Mark Koester | SI 1038 | 303-615-0759 | koesterm@msudenver.edu |
| Dr. Yanxi Li | SI 1050 | 303-615-0436 | yli7@msudenver.edu |
| Dr. Patricia McKenna | SI 1057 | 303-615-0734 | mckennap@msudenver.edu |
| Dr. Mona Mocanasu | SI 3023 | 303-615-0747 | mmocanas@msudenver.edu |
| Dr. Rob Niemeyer | SI 1036 | 303-605-7192 | niemeyel@msudenver.edu |
| Dr. Shelley Poole | SI 3034 | 303-615-0756 | srohde2@msudenver.edu |
| Dr. Linda Sundbye | SI 3022 | 303-615-0746 | sundbyel@msudenver.edu |

Declaring a Major

To declare a major in mathematics with concentration in general mathematics, visit the Department of Mathematics and Statistics in SI 1022, or call (303) 615-0299. You should declare your major/concentration at least by the time you have finished the core requirements (listed below), and you absolutely must do this by the time you have completed 60 credit hours toward the degree.

Requirements for the Major ¹

| Core Mathematics Courses | Semester Hours |
|--|----------------|
| MTH 1410 Calculus I..... | 4 |
| MTH 2410 Calculus II | 4 |
| MTH 2420 Calculus III | 4 |
| MTH 3100 Introduction to Mathematical Proofs | 3 |

| One of the following courses | Semester Hours |
|--|----------------|
| MTH 2540 Scientific Computing with Python..... | 4 |
| MTH 2520 R Programming | 4 |
| CS 1050 Computer Science 1 | 4 |

A minimum of 22 credit hours chosen from MTH 2140², or any upper-division mathematics course with the exception of MTH 3240. The 22 credit hours must include at least 20 upper-division hours, at least seven hours of 4000-level courses in mathematics, including at least one Senior Experience course in mathematics, and one of the following sequences:

- MTH 3110 and MTH 3140²
- MTH 3110 and MTH 4110
- MTH 3210 and MTH 3220
- MTH 3420 and MTH 4440
- MTH 4210 and MTH 4230
- MTH 4410 and MTH 4420
- MTH 4480 and MTH 4490

Total hours required41

¹ A grade of “C-” or better is required in each course included in the major.

² Only one of the three courses MTH 2140, MTH 3130, and MTH 3140 can be counted

General Advising Guidelines

The suggestions below will help you complete your course of study in a timely manner. You should make every effort to follow them:

- Note that many mathematics courses are not offered every semester. Also note that, in the semesters in which they are offered, a course may only be offered during the day or in the evening. Course rotations can be found at:
<https://msudenver.edu/math>
- Complete the core mathematics courses and courses needed to satisfy the General Studies requirements as quickly as possible.
- Declare the major/concentration by the time you complete the core courses.
- Plan your sequence of courses with prerequisites in mind. Note that MTH 3100 is a prerequisite for most upper-division courses.

- Take no more than two upper-division mathematics courses in the same semester. To do otherwise may jeopardize your grades and content understanding.

Requirements for Transfer Students

- For mathematics courses from another institution to satisfy a requirement for the major, the content must match, not just the name of the course.
- You must meet all the requirements for the program based on all courses taken both at other institutions and at MSU Denver.
- You must take at least eight hours of upper-division mathematics courses at MSU Denver.
- The last 12 hours of coursework toward the degree must be taken at MSU Denver unless you have taken at least 45 hours of coursework at MSU Denver.

If you would like additional information on this program or other programs offered by the Department of Mathematics and Statistics, please visit the Department's Web site at:
<https://msudenver.edu/math>

Or write or call:
Metropolitan State University of Denver
Department of Mathematics and Statistics
P.O. Box 173362, Campus Box 38
Denver, Colorado 80217-3362
(303) 615-0299

