



**Department of Mathematics and Statistics**  
**Mathematics and Statistics Minor Requirements**  
 Effective Fall 2023

The Department of Mathematics and Statistics in the School of Letters, Arts and Sciences offers a mathematics minor and a statistics minor, which complement such majors as engineering technology, the other sciences, and economics.

**Advising Information**

This document, **Minor Requirements**, summarizes the requirements for graduating with a minor in mathematics or statistics.

You are strongly encouraged to talk to one or more of the **faculty advisors** as you plan your academic program.

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

<http://msudenver.edu/math>

**Declaring a Minor**

To declare a minor in mathematics or statistics, visit with Academic Advisor Leah Butler.

You should declare your major/concentration/minor at least by the time you have finished the core requirements (listed below), and you should do this by the time you have completed 60 credit hours toward the degree.

**Requirements for the Statistics Minor**

The statistics minor requires completion of the courses listed below and satisfaction of the minimum grade requirement<sup>1</sup>

<b>Prerequisite Courses</b>	<b>Semester Hours</b>
MTH 1410 Calculus I.....	4

**Required Core Courses**

MTH 2140 Computational Matrix Algebra <sup>2</sup> .....	2
MTH 3210 Probability and Statistics.....	4
MTH 3220 Statistical Methods .....	4
MTH 4230 Regression and Computational Statistics.....	4

**Elective - One of the following courses**

MTH 2520 R Programming.....	4
MTH 3240 Environmental Statistics.....	4
MTH 3510 SAS Programming .....	4
MTH 4210 Probability Theory .....	4
CS 1050 Computer Science I.....	4

*Total.....18-20*

<sup>1</sup> All courses in this minor must be completed with a grade of "C-" or better. The Statistics Minor cannot be combined with a Mathematics Major.

<sup>2</sup> MTH 3130 or MTH 3140 may be substituted.

**Requirements for the Mathematics Minor**

The mathematics minor requires completion of the courses listed below and satisfaction of the minimum grade requirement.<sup>1</sup>

**Required Core Courses**

**Semester Hours**

MTH 1410 Calculus I.....	4
MTH 2410 Calculus II.....	4

**Electives**

A minimum of 14 additional hours chosen from CS 1050 and the set of all 2000, 3000, or 4000 level math classes, except for MTH 3240.

- At most one of CS 1050, MTH 2520, MTH 2540 and MTH 3510 may be counted.
- At least 7 hours must be 3000 or 4000 level math classes, not counting MTH 3510.

Only one of three courses, MTH 2140, MTH 3130, or MTH 3140 may be counted.

*Total.....22*

<sup>1</sup> Students must achieve a cumulative GPA of 2.0 or higher in all MSU Denver courses counted in this minor.

## Math Minor Requirements in Other Majors

### Meteorology Required Mathematics Minor

Required Courses	Semester Hours
MTH 1410 Calculus I* .....	4
MTH 2410 Calculus II* .....	4
MTH 2420 Calculus III .....	4
MTH 3210 Probability and Statistics .....	4
MTH 3420 Differential Equations .....	4
Computer Science Programming Elective (one of the following):	
MTH 2540 Scientific Programming with Python .....	4
MTH 2520 R Programming .....	4
CS 1050 Computer Science 1 .....	4
<i>Total</i> .....	24

\* Calculus I and II must be completed with a grade of "C-" or better.

### Civil Engineering Technology Optional Mathematics Minor

Required Courses	Semester Hours
MTH 1410 Calculus I* .....	4
MTH 2410 Calculus II* .....	4
MTH 2420 Calculus III* .....	4
MTH 3130 Applied Methods in Linear Algebra.....	4
MTH 3420 Differential Equations .....	4
MTH 3210 Probability and Statistics .....	4
OR one of the following courses:	
EET 2350 Advanced Technical Programming.....	3
CS 1050 Computer Science 1 .....	4
CSS 1247 Introduction to Programming .....	3
<i>Total</i> .....	23-24

\* Calculus I, II, and III must be completed with a grade of "C-" or better.

### Mechanical Engineering Technology Optional Recommended Mathematics Minor

Required Courses	Semester Hours
MTH 1410 Calculus I* .....	4
MTH 2410 Calculus II* .....	4
MTH 2420 Calculus III* .....	4
MTH 3130 Applied Methods in Linear Algebra .....	4
MTH 3210 Probability and Statistics.....	4
MTH 3420 Differential Equations.....	4
And one of the following courses:	
CS 1050 Computer Science 1.....	4
Or	
CSS 1247 Introduction to Programming.....	4
<i>Total</i> .....	28

\* Calculus I, II, and III must be completed with a grade of "C-" or better.

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:  
<http://math.msudenver.edu/math>

Or write or call:  
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