

Mathematics Undergraduate Core Requirements

~~Declaring the Mathematics Major~~

~~Students seeking to major in mathematics are first designated as “pre-mathematics majors” until they have completed both MATH 1900 and MATH 2000 or equivalent courses. Upon successful completion of these two courses with grades of C or better, students will be allowed to declare mathematics as their major. Each of these courses must be completed successfully within two attempts.~~

Degree Requirements in Mathematics

All mathematics majors in all undergraduate programs must complete the mathematics core requirements.

Core Requirements

The following courses are required:

CMP SCI 1250	Introduction to Computing ¹	3
MATH 1320	Introduction to Probability and Statistics	3
MATH 1800	Analytic Geometry and Calculus I	5
MATH 1900	Analytic Geometry and Calculus II	5
MATH 2000	Analytic Geometry and Calculus III	5
MATH 2020	Introduction to Differential Equations	3
MATH 2450	Elementary Linear Algebra	3
MATH 3250	Foundations of Mathematics ³	3
or CMP SCI 3130	Design and Analysis of Algorithms	
MATH 4100	Real Analysis I ²	3
Total Hours		33

¹ Students in the Fiscal Mathematics ~~program~~ emphasis area will take MATH 4200 instead.

² Students in the Fiscal Mathematics ~~program~~ emphasis area will take MATH 4210 instead.

³ Students in the Data Science emphasis area may substitute course with CMP SCI 3130.

~~The related area requirements as described below must be satisfied. Students seeking a double degree, either within this department or with another department, do not have to fulfill the related area requirements.~~

Justification for request:

The current Core Requirements (which encompass the Math BA, Math BS, Math BS with emphasis in Data Science, and Math BS with emphasis in Fiscal Mathematics) allow students to skip taking Math 3250 (Foundations of Mathematics) if they take CS 3130 (Analysis of Algorithms) instead. Math 3250 is our foundational math course meant to prepare students for upper level math courses. CS 3130 is a computer science course on algorithms and contains very little math. Math students will be much better served by taking Math 3250. We are retaining the option to replace Math 3250 with CS 3130 for any Math BS - Data Science students in order to assist those students who are pursuing the Math BS - Data Science Emphasis among with a double major in Computer Science.

The "pre-mathematics major" language was used at the behest of a previous dean, though it was never enforced. We are removing it at the request of Academic Affairs.