## Mathematics Undergraduate Core Requirements

## Declaring the Mathematics Major

Students seeking to major in mathematics are first designated as "premathematics 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

1. The following courses are required:

| CMP SCI 1250 | Introduction to Computing | 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 |
| or CMP SCI 3130 | Design and Analysis of Algorithms |  |
| MATH 4100 | Real Analysis I | 3 |
| Total Hours |  | 33 |

2. 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.

Sign-offs from other departments affected by this proposal
None
Students passing CMP SCI 3130 must also complete MATH 3000.
Rationale
Math 3130 is similar to MATH 3000 but it is for Math majors as opposed to CS majors. This change will allow double majors to take only one of $3000 / 3250$

