## **Mathematics, Minor**

## Requirements

A minor in mathematics requires a minimum of 15 s.h. of mathematics coursework. Students must maintain a grade-point average (GPA) of at least 2.00 in all courses for the minor and in all UI courses for the minor.

Coursework for the minor must be taken on an A–F graded basis.

All courses must be at or above the level of calculus with differentiation and integration, numbered MATH:1460 Calculus for the Biological Sciences or above at the University of Iowa, or equivalent courses transferred from another institution. Courses for the minor must be mathematics courses (prefix MATH) or cross-referenced with a mathematics course.

## **Post-Calculus Courses**

At least 12 s.h. must be post-calculus courses offered by the Department of Mathematics or equivalent courses transferred from another institution. At least 9 of these 12 s.h. in post-calculus math courses must be taken at the University of Iowa. No more than 3 s.h. of transferred courses can be counted toward this post-calculus requirement.

Mathematics courses (prefix MATH) numbered 2000 or above are considered post-calculus, excluding MATH:3700, MATH:3996, MATH:3997, MATH:4010, and MATH:4020.

Post-calculus courses must be chosen to avoid duplication and regression with the core mathematics courses, particularly when the engineering mathematics courses are considered.

## **Special Rules for Engineering**

Students who have taken the engineering math courses —MATH:1560 Engineering Calculus II, MATH:2550 Engineering Matrix Algebra, MATH:2560 Engineering Differential Equations, and MATH:3550 Engineering Vector Calculus—may satisfy the post-calculus requirement by taking an additional 3 s.h. course from the following list.

Substituting a 3 s.h. post-calculus math course (prefix MATH) for any of these—MATH:1560, MATH:2550, MATH:2560, or MATH:3550—is allowed as long as there is no regression or duplication.

At least four of these courses must be taken at the University of Iowa: MATH:1560, MATH:2550, MATH:2560, MATH:3550, or the additional 3 s.h. post-calculus math course; no more than one transfer course will count.

Students may choose the additional 3 s.h. course from MATH:2150 Foundations of Geometry or courses numbered MATH:3720 or above, excluding the courses listed below.

| Course #  | Title                                      | Hours |
|-----------|--|-------|
| MATH:3996 | Individual Study and Honors in Mathematics | arr.  |
| MATH:3997 | Readings in Mathematics                    | arr.  |
| MATH:4010 | Basic Analysis                             | 3     |
| MATH:4020 | Basic Abstract Algebra                     | 3     |