

Core Mathematics Advising Guidelines

100-Level Mathematics Course Advising Guide

General: While many majors/minors require particular mathematics courses, others do not. Students needing a math class only to fulfill core requirements should consider the information contained herein before choosing a mathematics course.

MAT 107 Mathematics for the Liberal Arts

- Does not require as much algebra as MAT 111
- Often ideal for students needing a general core mathematics course; emphasizes conceptual rather than procedural understanding

MAT 108 Invitation to Mathematical Thinking

- Explores “great ideas” in mathematics
- Might appeal to honors students and many in the humanities
- Usually only offered in winter term

MAT 111 College Algebra

- Much overlap with high school Algebra II, but may contain some additional material
- Problems of higher average difficulty than most high school Algebra II courses
- Required by only a small number of programs of study
- Students with a good high school algebra background are often successful on the CLEP test for this course; the CLEP test or taking a different course (107, 108, 114, calculus) are usually better options for these students

MAT 114 Introduction to Statistics and Probability

- Required by a large (and growing) number of majors/minors, therefore gives added flexibility when choosing a minor or changing majors
- Highly applicable – covers ideas used every day in the modern world, ideas that may soon be considered essential to understand in order to be considered an educated person
- Most material new to most students, so students with various levels of achievement in high school mathematics can benefit
- Similar level of difficulty as that of college algebra, but fewer specific algebraic skills are required
- Much overlap with many high school statistics courses; although there is currently no CLEP test, there is a DANTES test that is at a somewhat higher level than this course

Other lower-level mathematics courses

- **MAT 101 Mathematics for Elementary Teachers:** open to all students but designed for future elementary teachers, so the topics are generally not of interest to non-education majors; not less difficult than MAT 107; MAT 107 is a better choice for non-ed students
- **MAT 112 Trigonometry:** can be a good option for many students but offered only rarely
- **MAT 116 Precalculus** (4 credit hours): designed for students who plan to eventually take calculus
- **MAT 201 Applied Calculus:** no trigonometry required; applications to business, biology, and other fields, much less emphasis on physics and engineering applications; less rigorous than the standard calculus sequence; offered only rarely