MATHEMATICS

Linyuan Lu, Chair

Mathematics is a dynamic and collaborative field. Studying mathematics prepares students for future graduate studies not only in math, but in a wide variety of analytical disciplines such as computer science, physics and engineering. It can also help to prepare students for professional studies in fields like medicine and law. Fundamentally, a background in mathematics benefits those pursuing careers where problem-solving, high-level analysis, critical thinking and persistence are useful. Mathematical training teaches students how to read and communicate complex ideas as well as computational skills. Our department offers a major and minor in mathematics, with areas of emphasis in actuarial, education, applied or general mathematics.

The degree program offers two tracks: a program leading to the degree of Bachelor of Science in mathematics and a special five-year program leading to a Bachelor of Science degree and a Master of Science degree in mathematics. Students benefit from relatively small classes, including many upper-level sections for both Honors and advanced students. In addition, the department serves many of the disciplines within the university through course offerings which provide basic mathematical skills. A mathematics minor or double major complements many primary areas of study, particularly the sciences.

General Mathematics Courses

MATH 111 is a course in basic mathematics intended for students who plan to take MATH 122 or MATH 170 and who need more thorough development in algebraic methods.

MATH 111I is an intensive version of MATH 111. This course is intended for students who plan to take MATH 122 or MATH 170 and desire additional support—in the form of smaller classes and more contact hours—to develop the necessary algebraic skills.

MATH 112 is the basic trigonometry course for students who plan to take MATH 141 and have adequate preparation in algebra but need more thorough development in trigonometry. This course may not be used for mathematics credit in the College of Engineering and Computing.

MATH 115 is the basic precalculus course for students who plan to take MATH 141 and need more thorough development in algebra and trigonometry before entering MATH 141. This course may not be used for mathematics credit in the College of Engineering and Computing.

MATH 122 is intended for students in business, the social sciences, pharmacy, and other disciplines which require an introduction to computational mathematics and calculus and is open to all interested students who satisfy the general requirements listed below.

MATH 141, MATH 142, MATH 241 constitute the normal calculus sequence for students in the College of Arts and Sciences and the College of Engineering and Computing. These courses are open to all students who satisfy the general requirements listed below.

MATH 170 is a basic course in finite mathematics. It may be used to satisfy the University’s core requirements and is open to all interested students who satisfy the general requirements listed below.

Freshman Placement in Mathematics

MATH 111: Qualification through placement.

MATH 111I: Qualification through placement.

MATH 112: Qualification through placement or credit for MATH 111, either by successful completion of the course with a grade of C or better, transfer credit from another university, or successful completion of the test in MATH 111, available from the testing service.

MATH 115: Qualification through placement.

MATH 122: Qualification through placement or credit for MATH 111, either by successful completion of the course with a grade of C or better, transfer credit from another university, or successful completion of the test in MATH 111, available from the testing service.

MATH 141: Qualification through placement or credit for MATH 112 or MATH 115, either by successful completion of the course with a grade of C or better, transfer credit from another university, or successful completion of the test in MATH 115, available from the testing service.

MATH 170: Qualification through placement or credit for MATH 111 or MATH 115, either by successful completion of the course with a grade of C or better, transfer credit from another university, or successful completion of the test in MATH 111 or MATH 115 which is available from the testing service.

Incoming students who wish to obtain bypass credit for certain mathematics courses may do so as follows:

MATH 111: CLEP Subject Examination titled “College Algebra” available from the testing service.

MATH 112: CLEP Subject Examination titled “Trigonometry” available from the testing service.

MATH 115: CLEP Subject Examination titled “College Algebra-Trigonometry” available from the testing service.

MATH 141: CLEP Subject Examination titled “Calculus with Analytic Geometry” available from the testing service.

Advanced Placement Test in Mathematics: The Advanced Placement Mathematics tests may be used to gain credit and advanced placement in calculus. Information is available from the testing service.