Mathematics Program

Purpose Statement

The purpose of the mathematics program is to develop students who understand mathematics as an academic discipline, who can use mathematics as a problem-solving tool in other disciplines, and who are skilled in mathematical reasoning, problem solving, critical thinking and communication.

The mathematics program achieves this purpose when its students

- receive a coherent, broad-based coverage of the discipline of mathematics;
- demonstrate conceptual and procedural understanding of mathematics;
- apply their knowledge to specific, constrained problems and produce solutions;
- possess a foundation of theory that will enable lifelong learning and development;
- meet State Department of Education standards for licensure in the area of mathematics (applies to education majors in mathematics only).

The department offers a major and minor in mathematics. Mathematics is a discipline essential to all facets of the employment world and an excellent background for a variety of specific professions. Secondary teaching licensure is available. Mathematics is also an excellent background for graduate studies in diverse fields.

Mathematics Major

Requirements (41 hours of MA courses) including the following:

G-MA 111 Calculus I (4 hours)
MA 112 Calculus II (4 hours)
G-MA 123 Discrete Mathematics (3 hours)
MA 211 Linear Algebra (3 hours)
MA 212 Calculus III (4 hours)
G-MA 221 Elementary Applied Statistics (4 hours)
MA 311 Advanced Analysis (4 hours)
MA 366 Differential Equations (4 hours)
MA 411 Introduction to Algebraic Structures (4 hours)
MA 342 Modern Geometry (4 hours)
MA 375 Junior Seminar (1 hour)
***MA 475** Senior Project (2 hours)

Required Supporting courses (all mathematics majors)

PH 205 College Physics I (5 hours)
PH 206 College Physics II (5 hours)

Mathematics Major for Teacher Licensure

Requirements (40 hours of MA courses) including the following:

G-MA 111 Calculus I (4 hours)
MA 112 Calculus II (4 hours)
G-MA 123 Discrete Mathematics (3 hours)
G-MA 153 Principles of Geometry (3 hours)
MA 211 Linear Algebra (3 hours)
MA 212 Calculus III (4 hours)
G-MA 221 Elementary Applied Statistics (4 hours)
MA 366 Differential Equations (4 hours)
MA 411 Introduction to Algebraic Structures (4 hours)
MA 342 Modern Geometry (4 hours)
MA 375 Junior Seminar (1 hour)
***MA 475** Senior Project (2 hours)

Required Supporting Courses:

PH 205 College Physics I (5 hours)
See Teacher Education Handbook for Curriculum and Instruction course requirements.

Mathematics Minor

Requirements (19 hours of MA courses)

G-MA 111 Calculus I (4 hours)
MA 112 Calculus II (4 hours)
G-MA 221 Elementary Applied Statistics (4 hours)

Plus one course from the following list
G-MA 123 Discrete Math (3 hours)
G-MA 153 Principles of Geometry (3 hours)
G-MA 201 Survey of Mathematics (3 hours)
MA 211 Linear Algebra (3 hours)

Plus one course from the following list
MA 212 Calculus III (4 hours)
MA 366 Differential Equations (4 hours)
MA 342 Modern Geometry (4 hours)
MA 411 Algebraic Structures (4 hours)