### MAED 2390: Introduction to Mathematical Systems

#### 3 Credit Hours

Prerequisite: The successful completion of two 1000 or 2000 level MATH or STAT courses.

This course is specifically designed to introduce students to the study of mathematics from a mathematical systems approach. A mathematical system consisting of undefined terms, axioms and theorems will be studied. The major emphasis of this class will be on the development of skills in communicating and justifying mathematical ideas and conclusions. Mathematical systems studied will vary according to the instructor and may be chosen from sets, number systems and/or geometry.

## MAED 3295: Mathematics for Middle Grades and Secondary Teachers 3 Credit Hours

Prerequisite: MATH 1190 or MAED 1190 or (MATH 1179 and MATH 1189)

This course is designed for the preservice teacher of mathematics for adolescents. Content strands to be explored include number and operation, algebra, and measurement. The process standards of communication, connections, problem solving, reasoning and proof, and representation will be emphasized. Appropriate use of manipulatives, calculators, and software will be integrated in course materials.

# <u>MAED 3316: Rational Numbers and Proportional Reasoning for Elementary</u> <u>Teachers</u>

### **3 Credit Hours**

Prerequisite: MATH 2008

A continuation of Mathematics 2008 designed for the P-5 teacher. Topics include the conceptual development of the rational numbers and extension to the real numbers, operations and problem solving with real numbers, patterns and relationships, and proportional reasoning. Experience and exploration with appropriate technology and physical models will be an integral part of the study of these ideas.

Notes: Not for mathematics or mathematics education majors.