

# MATHEMATICS EDUCATION (MTE)

*College of the Sciences and Mathematics*

## Courses

### **MTE 502. Fundamental Concepts of Mathematics II. 3 Credits.**

A continuation of MTE 501. The real number system, probability, statistics, geometry, measurement (including the metric system), and problem solving.

Pre / Co requisites: MTE 502 requires prerequisite of MTE 501.

Typically offered in Fall & Spring.

### **MTE 507. Foundations of Secondary Mathematics Education. 3 Credits.**

Research methods in mathematics education; forces which have shaped mathematics education; classroom implications of 20th-century learning theorists; assessment in the classroom; methods of organizing for instruction; cultural and gender considerations.

Typically offered in Summer.

### **MTE 508. Jr. High School Math - Curriculum, Instruction, and Assessment. 3 Credits.**

This course will focus on the curricula, methods of instruction, and assessment techniques used to teach mathematics in a junior high school setting. Course topics will include elementary school mathematics from the perspective of a secondary school teacher, junior high school mathematics, algebra I, and general/consumer mathematics. Teachers also will explore strategies that can be used to integrate the calculator, computer, and new CD-ROM technologies into the mathematics classroom.

Pre / Co requisites: MTE 508 requires prerequisite of MTE 507.

Typically offered in Spring.

### **MTE 512. Sr. High School Math - Curriculum, Instruction and Assessment. 3 Credits.**

This course will focus on the curricula, methods of instruction, and assessment techniques used to teach mathematics in a senior high school setting. Course topics will include geometries, algebra II, trigonometry, precalculus, and discrete mathematics. Teachers also will explore strategies that can be used to integrate the scientific and graphing calculator, computer, and the new CD-ROM technologies into the mathematics classroom.

Pre / Co requisites: MTE 512 requires prerequisite of MTE 507.

Typically offered in Spring.

### **MTE 530. Geometry for the Elementary Teacher. 3 Credits.**

Basic concepts in geometry. Euclidean geometry and postulative systems.

Typically offered in Fall.

### **MTE 553. Teaching Children Mathematics I. 3 Credits.**

In-depth treatment of strategies, methods, and materials for teaching the following concepts in an elementary classroom: place value; addition, subtraction, multiplication, and division of whole numbers; measurement; elementary number theory; geometry; fractions; and integers.

Pre / Co requisites: MTE 553 requires prerequisites of two mathematics courses.

Typically offered in Fall.

### **MTE 555. Teaching Children Mathematics II. 3 Credits.**

A continuation of the strategies and methods for teaching the topics covered in MTE 553 extended to real numbers, deeper concepts of geometry in the plane and space, percents, proportional thinking and algebra.

Pre / Co requisites: MTE 555 requires prerequisite MTE 553; field clearances.

Typically offered in Fall.

### **MTE 568. Seminar For Second School Math Tchrs. 3 Credits.**

Selected topics of current interest in secondary school mathematics for the in-service teacher. Repeatable for Credit.

### **MTE 595. Topics in Mathematics Education. 1-3 Credits.**

Topics announced at time of offering.

Consent: Permission of the Department required to add.

### **MTE 599. Independent Study. 1-3 Credits.**

Contact department for more information about this course.

### **MTE 604. Research Seminar. 3 Credits.**

This course will focus on the study of research in mathematics education. Contemporary topics of research will be discussed and perused. Students will be expected to report on a topic of research of their choosing. In addition, empirical study and design will be discussed along with data analysis and the reporting of results.

### **MTE 610. Thesis. 3-6 Credits.**

Contact department for more information about this course.