

# MAED: MATH EDUCATION (MAED)

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## **MAED 560. Teaching Math In The Elem Scho. (1 Credit)**

Selected mathematical principles and concepts for teaching mathematics at elementary grade levels. Emphasis will be on instructional methods and technological supplements as outlined by the National Council of Teachers of Mathematics and the Virginia State Board of Education. Students will be provided the opportunity to select, create, and evaluate topics, materials, and strategies in teaching elementary school mathematics.

## **MAED 561. Teaching Math In Middle School. (3 Credits)**

Selected mathematical principles and concepts for teaching mathematics at middle school grade levels. Emphasis will be on instructional methods and technological supplements as outlined by the National Council of Teachers of Mathematics and the Virginia State Board of Education. Students will be provided the opportunity to select, create, and evaluate topics, materials, and strategies in teaching middle school mathematics.

## **MAED 562. Curr Instru & Research Math Ed. (3 Credits)**

A study of the historical development of K-12 mathematics curriculum and instruction including current trends and issues in the study of mathematics pedagogy.

## **MAED 563. Curr Instr & Research Math Ed. (3 Credits)**

An examination of theoretical and empirical research in the field of mathematics education including the study of the philosophy and psychology of teaching and learning mathematics and an overview of research design.

## **MAED 565. Research Based Field Expr Teac. (3 Credits)**

Provides an opportunity for the exploration of an area of interest in the teaching of mathematics through systematic observation, reflection, and analysis of a field experience in a K-12 classroom setting. Basic inquiry-based research ideas will be examined with a follow-up field study aimed at increasing understanding of theoretical and practical issues in the mathematical knowledge needed for and pedagogical skills about teaching mathematics.

## **MAED 590. Independent Study. (3 Credits)**

A course permitting the student to pursue topics of special interest, which may not be available through other, formal courses or which may be needed at a time when other courses are not offered. Course may be taken for credit no more than two times.

## **MAED 591. Field Project/Externship. (3 Credits)**

Project must be approved by mathematics education faculty prior to registration. Students are encouraged to obtain an internship with an education-based provider (school, district office, state office, etc.). In the event that a formal internship is not feasible students will participate in a collaborative real world or simulated education-based project. Successful completion of the project will result in a written report including overview of current relevant literature / research, compiled field notes, and summary research paper.

## **MAED 592. Action Research/Thesis. (3 Credits)**

Each student completes a master's thesis in Mathematics Education with the aid of an advisor and committee. A broad range of topics and methods of inquiry can be used to meet the requirement including quantitative and qualitative case studies, historical studies, and action research.