

MAE-MATHEMATICS EDUCATION (MAE)

MAE 2801 Elementary School Mathematics (4 Credits)

Mathematics appropriate for the elementary school, including number systems (six basic sets of numbers), numeration concepts, learning sequences, algorithms, geometry and measurement, problem solving techniques, and error patterns.

MAE 3311 Teaching Mathematics in the Elementary School (3 Credits)

This course is designed to address teacher candidates' pedagogical content knowledge for teaching whole number concepts and operations and rational number concepts and operations, geometry, measurement, and algebraic reasoning.

MAE 4326 Practicum for Teaching Mathematics in the Elementary School (3 Credits)

In this course teacher candidates will learn how to utilize research-based strategies to teach mathematics concepts within the Kindergarten through sixth grade classroom. Teacher candidates will utilize current state standards to create developmentally appropriate lessons, implement strategies with varying aspects of rigor and complexity, and differentiate instruction based on formative and summative assessments. Teacher candidates will also learn how to identify gaps in students' subject matter knowledge, analyze data and diagnose students' learning needs, and respond to students' misconceptions within the elementary mathematics classroom.