MTE 5301E. Visual Models for Middle School Mathematics.
This course uses visual models to motivate understanding of the fundamental concepts underlying middle school mathematics. Pedagogical techniques to engage middle school students will also be addressed including inquiry-based instructional methods utilizing these visual models.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Course Attribute(s): Topics
Grade Mode: Standard Letter

MTE 5301F. Implementing New Mathematics Curriculum.
In this course we will investigate the keys to successfully implementing new curriculum. Two main aspects considered are: 1) the mathematical content knowledge required for a new curriculum and 2) how to build a community of practice which provides support during the implementation process.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Course Attribute(s): Topics
Grade Mode: Standard Letter

MTE 5315. Algebraic Reasoning.
This course will focus on using algebraic reasoning to investigate patterns, make generalizations, formulate mathematical models, and make predications; using properties, graphs, and applications of relations and function to analyze, model and solve problems; and making connections among geometric, graphic, numeric and symbolic representation of functions and relations.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

This course will deal with using graphical and numerical techniques to explore data, characterize patterns, and describe departures from patterns; designing experiments to solve problems; understanding the theory of probability and its relationship to sampling and statistical inference and its use in making and evaluating predications. Prerequisite: MTE 5315 with a grade of "C" or better.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

MTE 5323. Logic and Foundations of Mathematics.
This course will consist of an introduction to fundamental mathematical structures and techniques of proof. Topics will include: logic, set theory, number theory, relations, and functions. Emphasis will be placed on communication about mathematics and construction of well-reasoned explanations. Prerequisite: MTE 5313 and MTE 5319 both with grades of "C" or better.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter