# **Masters of Science for Teachers Program**

## **Summer Course Offerings**

### June 24- July 30, 2019

#### MATH 905: Euclidean & Non-Euclidean Geometries

Monday, Wednesday & Friday, 1:10 – 3:40pm | 3 credits

An axiomatic development of geometry, beginning with finite geometries; emphasis is given to the fundamental concepts of Euclidean and non-Euclidean geometries from a synthetic perspective.

#### MATH 909: Probability and Statistics for Teachers

Monday, Wednesday & Friday, 8:40 – 11:00am | 3 credits

Permutations and combinations; finite sample spaces; random variables; binomial distributions; statistical applications.

#### MATH 916: Theory of Numbers for Teachers

Tuesday & Thursday, 1:30 – 5:15pm | 3 credits

Divisibility and primes; congruences; quadratic reciprocity; number theoretic functions; Diophantine equations; perfect and amicable numbers.

#### MATH 917: Mathematical Proof and Problem Solving

Monday, Wednesday & Friday, 8:40 – 11:00am | 3 credits

An introduction to the fundamental concepts in real analysis that provide the mathematical foundation for calculus. Content focuses on properties of sequences and series; properties of functions, including continuity, the derivative and the Riemann integral.

#### MATH 918: Analysis of Real Numbers

Tuesday & Thursday, 8:40 – 12:15pm | 3 credits

An introduction to the fundamental concepts in real analysis that provide the mathematical foundation for calculus. Content focuses on properties of sequences and series; properties of functions, including continuity, the derivative and the Riemann integral.

### May 20 – June 21, 2018

#### MATH 900: Bridges from the Classroom to Mathematics

Offered online | 1 credit

An introduction to the goals of the MST program. Students have the opportunity to explore mathematical problems; to complete activities that make connections between several areas of mathematics, including the mathematical content in the MST degree program and the secondary school mathematics classroom; and to participate in readings/on-line discussion on the nature of mathematics.

## MATH 928: Topics in in Mathematics for Teachers: Solving Polynomials through the Centuries

Offered online | 1 credit

Even though algebraic symbolism is really only a few hundred years old, algebraic thinking has been around for millennia. From approximating square roots to the proof that there can be no 5th degree equivalent to the quadratic formula, we will solve or find approximate solutions to a variety of quadratic, cubic, and other higher degree polynomial equations, using the methods used by a variety of civilizations throughout history, while placing the techniques and their developers in historical context.

Take your education to the next level

(603) 862-1943 mst.math@unh.edu https://ceps.unh.edu/mst