# MTHC - Mathematics for Educators | Grad

#### MTHC 5230 Discrete Mathematics (3)

This course covers mathematical structures pertinent to an understanding of computers, including graphs, Boolean algebra, and finite state machines.

#### MTHC 5250 Vector Geometry (3)

Basic concepts pertaining to vectors in the plane are developed. Proofs of theorems of plane geometry, using a synthetic approach, an analytic approach, and a vector approach are compared. The class introduces vector spaces.

### MTHC 5260 Algebra for Secondary Teachers (3)

Students examine and extend topics in secondary school algebra. Techniques and materials for teaching algebra are also discussed.

### MTHC 5280 Calculus for Teachers (3)

The course reviews the basic concepts of differential and integral calculus, with special focus on central ideas,theory, and applications. Computers and/or graphing calculators are used to help investigate ideas. Students enrolling in this course are assumed to have completed the undergraduate calculus sequence with grades of B or higher.

## MTHC 5300 History of Mathematics (3)

This course is based on selected readings that examine the history and philosophy of mathematics. An important goal is to provide students with a perspective on the relationship between