

# Minnesota State University Moorhead

## MATH 415: Tools & Technology for Secondary Mathematics

### A. COURSE DESCRIPTION

Credits: 2

Lecture Hours/Week: 2

Lab Hours/Week: 0

OJT Hours/Week: \*.\*

Prerequisites: None

Corequisites: None

MnTC Goals: None

This course is designed to educate pre-service secondary teachers of mathematics in the integration of instructional technology to aid in the teaching and learning of mathematics. This will involve students to acquire and demonstrate expertise with software, apps, and calculators. Develop mathematics lessons using information from discussion and research. These lessons will involve students in an active and meaningful mathematical learning experience involving instructional technology.

**B. COURSE EFFECTIVE DATES:** 02/01/2017 - Present

### C. OUTLINE OF MAJOR CONTENT AREAS

### D. LEARNING OUTCOMES (General)

1. Develop expertise with analysis software to support student learning of probability and statistics.
2. In addition students will select from two of the following:
  - ¿ Develop expertise with computer algebra systems to support student learning of mathematics.
  - ¿ Develop expertise with dynamic geometry software to support student learning of geometry.
  - ¿ Develop expertise with statistical simulation to support student learning of mathematics.
  - ¿ Develop expertise in other mathematical action technologies, such as physical manipulatives.

### E. Minnesota Transfer Curriculum Goal Area(s) and Competencies

None

### F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

### G. SPECIAL INFORMATION

None noted