Minnesota State University Moorhead

MATH 486: History of Mathematics

A. COURSE DESCRIPTION

Credits: 3

Lecture Hours/Week: 3

Lab Hours/Week: 0

OJT Hours/Week: *.*

Prerequisites:
This course requires the following prerequisite
   MATH 262 - Calculus II

Corequisites: None

MnTC Goals: None

Topical and chronological survey of the main branches of mathematics. Required for Math Education majors. May not be used as a restricted elective for any other emphasis nor for the B.A. degree in mathematics.

B. COURSE EFFECTIVE DATES: 06/01/1995 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

1. Mathematics of ancient Egypt, Greece, China, India, the Arab world, and others.
2. Rise of the proof
3. Origins of trigonometry, logarithms, and calculus
4. Additional math history topics

D. LEARNING OUTCOMES (General)

1. The student will understand the origins of basic mathematical structures and ideas, such as rigorous proofs, incommensurable ratios, calculus, infinite series, etc.
2. The student will understand the historical reasons for the creation of various mathematical functions, such as trigonometric and logarithmic functions.
3. The student will gain a greater understanding of the field of mathematics as a whole, and be able to apply big picture concepts in a secondary education mathematics classroom.
4. The student will understand that the history of mathematics includes mathematical advancements from a wide variety of cultural backgrounds.

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

None

F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

G. SPECIAL INFORMATION

None noted