Minnesota State University Moorhead

HON 386: Eureka! A History of Mathematical Ideas

A. COURSE DESCRIPTION

Credits: 3

Lecture Hours/Week: 3

Lab Hours/Week: 0

OJT Hours/Week: *.*

Prerequisites:
This course requires the following prerequisite
  MATH 261 - Calculus I

Corequisites: None

MnTC Goals: None

We will explore the history of mathematics from ancient to modern times by using famous equations as entry points to different periods in mathematical history. Once in a period we will explore the development of mathematics at that time, the people involved in that development, the culture at the time, and then fast forward to the modern implications of that particular branch of mathematics. We will move chronologically and connect the mathematics to the development of science, politics, art, music, and many other fields.

B. COURSE EFFECTIVE DATES: 02/01/2018 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

D. LEARNING OUTCOMES (General)

1. The student will understand the origins of basic mathematical structures and ideas, such as rigorous proofs, incommensurable ratios, calculus, and infinite series.
2. The student will examine the historical reasons for the creation of various mathematical functions, such as trigonometric and logarithmic functions.
3. The student will explore the wide variety of cultures and people who contributed to the advancement of mathematics and synthesize how these contributions formed a particular concept as a whole.
4. The student will analyze the influence that mathematics has had on science, politics, art, humanities, and many other disciplines.
5. The student will demonstrate the writing and speaking processes through invention, organization, drafting, revision, editing and presentation.
6. The student will participate effectively in groups with emphasis on listening, critical and reflective thinking, and responding.
7. The student will be able to locate, evaluate, and synthesize in a responsible manner material from diverse sources and points of view.

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

None

F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

G. SPECIAL INFORMATION

None noted