

**Department:** MATH

**Course No.:** 242W

**Title:** History of Mathematics

**Credits:** 3

**Contact:** David Gross

**WQ:** W

**Catalog Copy:** 242W. History of Mathematics. Either semester, alternate years. Three credits. Prerequisite: MATH 210 and 211, or 221. This course may not be counted in any of the major groups described in the Mathematics Departmental listing.

A historical study of the growth of the various fields of mathematics.

**W Criteria:** There are three writing assignments (when Professor Gerald Leibowitz is the instructor): a short paper comparing the mathematical achievements of ancient Egypt and Mesopotamia; a longer paper on the history of an area of mathematics (e.g., history of mathematical analysis or history of mathematical logic or history of actuarial science) or the mathematics of a certain place and time period (e.g., history of mathematics in medieval India); and a longer biographical paper that focuses on a mathematician or mathematical scientist (actuary, statistician, pioneer in computer science). The short paper is at least three pages (but not much longer) while the longer papers will each be at least six pages in length. They count as 10%, 20%, and 20% of the semester grade, with homework sets, the midterm exam, and the final exam counting (respectively) for 10%, 20%, and 20%. Thus there will be a minimum of 15 pages of revised end edited written work.

The short paper serves to have the students review the work of the first few weeks of the course and to abstract the key features. The longer papers give them opportunities to enhance the materials presented in class by going into greater depth in the study of the history of an area of mathematics of interest to them and of the life and work of a significant person in the development of mathematics.

Students present a first draft of the short paper. The drafts are read and marked with numerous comments and suggestions for improvement. The students then revise the paper, and the final draft also receives written commentary. The process is repeated for the area/topic paper. But only one draft of the biographical paper is required.

In addition: The syllabus for the course will include the "F" clause: "Students cannot pass the course without passing the W component".