

Syllabus
Math 01.410 - History of Mathematics

CATALOG DESCRIPTION:

Math 01.410 History of Mathematics 3 s.h.

(Prerequisites: Two 300- or 400- level MATH or STAT courses that fulfill count as a core requirement or a restricted elective for the Mathematics major with a grade of C- or better in both courses)

This course includes a survey of the development of mathematical ideas from early times up to present day mathematics. Emphasis is on historical mathematical problems and their solution. Readings and reports on selected topics are required.

OBJECTIVES:

This course gives students from many different majors the opportunity to see how the growth of mathematical ideas and techniques has evolved. In particular, the historical, religious, economic and philosophical background is shown to play a critical role in the development of mathematics. This course is especially recommended to future teachers.

CONTENT:

1. Babylonian and Egyptian mathematics
2. Greek mathematics
 - 2.1 Pythagoras
 - 2.2 Euclid and the elements of geometry
 - 2.3 Archimedes
 - 2.4 Apollonius
3. Development of Trigonometry
4. Development of Algebra
5. Development of Analytic Geometry
6. Development of Calculus
7. Development of Selected Topics of Modern Mathematics
 - 7.1 Modern geometries

7.2 Modern algebra

7.3 Methods of real analysis

TEXTBOOK(S):

- BURTON, D.M., The History of Mathematics, Allyn and Bacon, 5th edition.
- EVES, J.H., An Introduction to the History of Mathematics, Saunders, 1990.