Syllabus
Math 01.522 - History of Mathematics

CATALOG DESCRIPTION:

Math 01.522 History of Mathematics 3 s.h. (Prerequisites: two semesters of undergraduate calculus)

Topics include: Babylonian, Egyptian and Greek mathematics as well as topics in current mathematics. Attention will be given to the development of trigonometry, algebra, analytic geometry and the calculus.

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 roll 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, 1992.

- EVES, J.H., An Introduction to the History of Mathematics, Saunders, 1990.