



**Catalog Description:**

Development of mathematics from primitive origins to present forms. Topics include: development of arithmetic, algebra, geometry, trigonometry, and calculus.

**Prerequisite:**

C- or better in 3345, 4507, or 5520H; or credit for 568, 571, 507, 580, or 520H; or permission of department.

**Exclusions:**

Open only to math majors, or students with graduate standing in Ed T&L. Not open to students with credit for 504.

**Text:**

*Journey through Genius*, by William Dunham, published by Wiley, ISBN: 0471500305, and *Ximera History of Mathematics* (Free online access through Carmen)

**Topics List:**

1. Development of arithmetic; Babylonian tablets and Egyptian papyri.
2. Development of geometry: Pythagoras, Thales, Euclid, Archimedes, and non-Euclidean geometry.
3. Development of algebra: Arabic scholars, Fibonacci, Cardano.
4. Development of calculus: Newton, Leibniz, Bernoulli, Euler, Gauss.
5. Beyond calculus: Cantor, others by choice of instructor or students.