Math 106: History of Mathematics

Catalog Description

106. History of Mathematics. Lecture, three hours; discussion, one hour. Requisites: courses 31A, 31B, 32A. Roots of modern mathematics in ancient Babylonia and Greece, including place value number systems and proof. Development of algebra through Middle Ages to Fermat and Abel, invention of analytic geometry and calculus. Selected topics. P/NP or letter grading.

General Information

Math 106 focuses on the development of mathematics and its role in society through the ages. The presentation of topics in the course varies according to the instructor. However, there are four major topic areas that form the core of the course.

1. The history of numeral systems through various early civilizations, and the development of place-value systems of numeration (the sexagesimal system of the Babylonians, and our own Hindu-Arabic system).

2. The origins and evolution of the axiomatic method and proof in mathematics, beginning with the Greeks (Thales, Eudoxus, Euclid), with major advances in the nineteenth century when calculus was placed on a rigorous footing through the efforts of Cauchy, Weierstrass, and others.

3. The evolution of symbolic algebra, which includes solution of equations and the work of Diophantus, Cardano, Viete, and Descartes (who gave us the unknown quantity "x").

4. The development of the calculus, which demonstrated its power by explaining the motion of the planets.

Math 106 is particularly recommended for students who are planning to teach in middle school and high school, since many of the topics treated in the course are directly related to the mathematics taught in the schools.

Recent Enrollment Statistics

Year	Fall	Winter	Spring
1996-1997	17 (1 section)	(no sections)	(no sections)
1997-1998	21 (1 section)	(no sections)	(no sections)
1998-1999	(no sections)	(no sections)	(no sections)
1999-2000	32 (1 section)	(no sections)	<(no sections)
2000-2001	(no sections)	31 (1 section)	(no sections)
2001-2002	27 (1 section)	(no sections)	(no sections)
2002-2003	33 (1 section)	(no sections)	(no sections)
2003-2004	35 (1 section)	(no sections)	(no sections)
2004-2005	(1 section)	(no sections)	(no sections)