

Math 300

History of Mathematics

This course will emphasize the human and social aspects of our subject. Mathematics was invented by people with most characteristics in common with you and me, in environments that greatly influenced what they did, how they did it, and how it was received. We'll rely on Struik's text for a general tour—I'll help interpret it. In my own contribution to the course, though, I'll emphasize history of some subjects that I know most about and are most relevant to your own studies. These include geometry, foundations of arithmetic, logic, and computer science. Some date back to antiquity, but most stem from the 19th and 20th centuries. I'll tailor what I present to what you ask about, and hope I can help you find answers to questions you've always wanted to ask!

Evaluation:

- Two term papers (27% & 33%) of moderate length (12 pages?). You'll choose the topics, with my consent. I'll provide an initial list of suggestions. I hope you'll find at least one that's closely related to another course you're taking.
- Class presentation (10%). I'll ask you to report very briefly on questions you've investigated in connection with this course.
- Four quizzes (6%, 7%, 8%, 9%) to ensure that you're benefiting from the text and lectures.

The main goal of the course is to give you some experience in investigating the history of the topics in your other courses, and their relationships to the rest of the world. And for you to learn to present that material. I expect to spend considerable effort showing you how to find information, helping you organize your investigations, and helping you learn to present your findings.

Texts

Dirk J. Struik, *A concise history of mathematics* (Dover paperback)
Hubert C. Kennedy, *Peano: Life and Works of Giuseppe Peano*,
(cheap hardcopy or free download from WWW.LULU.COM)

Prerequisite

Math 227—Calculus II

TT 12:35–13.50
TH 428

James T. Smith
smith@math.sfsu.edu