

## Math 481: History of Mathematics Spring 2006

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Office Hours: Monday, 1:30–2:30; Wednesday, 10:30–11:30; Friday 2:00–3:00  
and by appointment or drop in (as long as I'm free)

Course Web Page: <http://www.smcm.edu/users/sgoldstine/Math481s06.html>

Text: Victor J. Katz, *A History of Mathematics: An Introduction, Second Edition*

### Course Goals

This course will address the history of mathematics from the earliest number systems to the innovations of the 20th century. To put it mildly, there is a lot of ground to cover here, and our wanderings will be guided by the central advances in human thought and the personal interests of the class.

You should leave this course with a stronger sense of where the mathematics that you have studied and will study in the future comes from and how it fits into the evolution of human civilizations. In the process, you will develop your ability to present mathematics and history in spoken and written forms.

### Grading

Homework	20%
Class Participation	15%
Short Presentation	10%
Exam	20%
Term Project	30%
Concluding Paper	5%

### Homework

In addition to regular reading assignments, the homework will be a mix of mathematical exercises and short essay questions. It will be assigned *very* roughly once a week.

### Class Participation

During class time, we will be building on your readings from the text and other sources. Consequently, you should come to class prepared to discuss the course material. Class participation includes asking questions, answering questions, offering opinions, trying new things at the board, presenting assigned material at the board, and any other constructive contributions during course meetings.

### **Short Presentation**

Since the history of mathematics is such a vast subject, I will be skipping many fascinating areas. In order to give you more control over what we cover, I am asking each of you to look into a topic that interests you and that you would like to share with the class. This topic should be different than the subject of your term project. The textbook, the web sites linked to the course web page, and the reserve book list are good places to look for ideas.

Once you have an idea, let me know what it is so that we can discuss how and when you'll present it in class. Your presentation should be 20–45 minutes, and it's a good idea to rehearse it in front of a friend or two so that you're comfortable with the material when you get to class. When possible, I'll try to schedule these talks so that they fit in with the rest of the course material, but we may end up hopping around a bit.

I'm hoping that we'll have one or two presentations a week starting around the fourth week of classes, so please think about volunteering early. If you present sooner, that leaves you more time when the semester gets busy.

### **Exam**

There will be one exam in this course towards the end of the semester. It will be fairly low key and will not involve memorizing dates or places. I will say more about this when the exam is closer.

### **Term Project**

As your major assignment this semester, you will be researching a topic of your choosing, writing a paper on the subject, and giving a short presentation on your project to the class. The last few classes of the semester as well as the final exam period will be devoted to project presentations. No two of you should be doing the same topic, so if you have your heart set on something, come to me soon to claim it.

I will hand out a project timeline in the first month of classes. In brief, you will choose a topic and clear the proposal through me, submit a first draft in mid-semester, submit a final draft towards the end of the semester, and give your presentation in class.

### **Concluding Paper**

This paper will be an opportunity for you to look back at the course material and summarize what you have taken from it. No research will be involved.

Remember, all of us will help make this course what it is. Here's to a rewarding semester!