

Course Outline: Math 3510, Spring 09

The web page for this course can be found at <http://livetoad.org/>. Please check there frequently for announcements, changes, due dates, solutions, scores, and other goodies.

<i>ML King Day</i>	Mon	19	Jan
Exam 1	Thu	5	Mar
<i>Spring Break</i>	Mon–Fri	9–13	Mar
<i>Last Day to Withdraw</i>	Fri	27	Mar
Exam 2	Tue	5	May, 12:30–2:30

Introduction

Welcome to History of Math! In this course we will look at the development of mathematical ideas; the evolution of mathematical philosophy and its influence on education; and the political and social context for these developments.

Office hours

My office is UH 4080e. The phone number is 419 530 2975. My email address is simply paul.hewitt, at utoledo.edu. I will be in my office for an hour before and after each class. At these times you can call or stop by without an appointment. I am also available at other times, but for these you must make an appointment. Feel free to ask for appointments at other times if you cannot make it to my regular office hours. If you call me when I am not in my office then you can leave a voice mail message and I will get back to you as soon as I can.

Text and other resources

We will use two books. The first was written primarily with teachers in mind: *Math through the Ages* (expanded edition), by W Berlinghoff and F Gouvêa. It begins with a quick overview of mathematical history, with primary emphasis on western culture. The main part of the book is a series of short sketches of important mathematical developments.

The second is not strictly a history book, but delves more deeply into the development of important mathematical ideas: *Yearning for the Impossible*, by John Stillwell.

Other resources:

- MacTutor: <http://www-history.mcs.st-and.ac.uk>
- Wikipedia: <http://wikipedia.org>
- V Katz, *A History of Mathematics*, Addison-Wesley, 1998.
- V Katz, *Using History to Teach Mathematics*, Math Assoc of America, 2000.
- GG Joseph, *The Crest of the Peacock*, Princeton Univ Press, 2000.

There is also a section “What to read next” at the end of *Math through the Ages*.

Quizzes

There will be a short, 5-point quiz nearly every day, based on reading assignments which I will post on the web. Your 20 best quiz scores will count towards your final grade. I will not give make-up quizzes under any circumstances. If you miss a quiz then that will be one of the scores you drop.

Exercises

There will be several exercise sets. I will post the problems and due dates as the semester progresses. Each problem will earn 0 points if your proof or calculation is mathematically incorrect; 2 points if it is correct, but not well-written; 4 points if it is correct and well-written. You may earn up to 100 points total for your combined work on the research projects and assignments (see below).

Thus, your scores will not depend solely on your answer, but on the clarity and accuracy of your explanations. In fact, the answers you typically find “in the back of the book” are usually far too sketchy to earn you any points as written. You will not get credit for a solution if you are vague or if you omit important details.

Before you turn in your homework, fold the papers lengthwise and write on the outside

your name, Math 3510, Spring 09, assignment number, due date

Research projects and class discussion

You have the option to do one research project, worth up to 40 points. These points will be added to your total for the exercises, up to a maximum of 100 for the semester.

You will be required to present your results to the class, but you will not have to submit any written form, apart from a detailed, annotated list of references. Your grade on these projects will depend on both the thoroughness of your research and also the organization and liveliness of your presentation to the class.

In addition, at the end of the semester you will receive up to 100 points for your active participation in the question-and-answer portion of your fellow students' presentations.

Plagiarism

I encourage you to work together. Studies show that students who work together consistently out-perform those who do not. However, your own work must be written in your own words. Do not “divide up the labor”. Do not turn in work that is not your own. Copying is cheating. This includes copying from another student or copying from a book. If you turn in work that is not your own then you will get a 0 on that assignment. If it happens a second time you will get an F in the course.

Exams

There will be two exams, both optional, worth 100 points each. The exam dates are listed on the calendar above. The exam questions will be derived from three the quiz questions, modified into short-answer form.

I will give make-up exams only in case of a documented exigency, such as illness or a funeral. If you are sick the day of the exam then you must call or email that same day if you expect to be able to make up the exam. Otherwise you must arrange for a make-up exam ahead of time. If I am not in my office then you can leave a voice mail message. If you fail to show up for an exam and do not contact me about it until afterwards then you will not be able to make up that exam — you will get a 0 for that exam.

Grades

Your final grade will be determined from your total points earned, based on the following scale:

90% earns an A; 80–89% earns a B; 70–79% earns a C; 60–69% earns a D.

If you want me to post your scores under a nickname then on your quiz card write your name, an email address, and the nickname you want to use — preferably something not obvious! I will not accept email requests to email or post your scores or final grade. If you want me to post your scores then you must write the above information on your quiz card.

Faculty can no longer give an IW grade. If you are still registered after the 10th week you will get a grade in this course, whether or not you have stopped attending.