

Course Outline: Math 3510, Fall 2010

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>Labor Day</i>	Mon	6	Sep
Exam 1: Chapters 1–3	Tue	28	Sep
<i>Fall Break</i>	Mon–Tue	11–12	Oct
<i>Last Day to Withdraw</i>	Fri	29	Oct
<i>No class!</i>	Tue	2	Nov
Class meets at TMA	Fri	5	Nov (time tba)
Exam 2: Chapters 4–6	Tue	9	Nov
<i>Veteran's Day</i>	Thu	11	Nov
<i>Thanksgiving</i>	Wed–Fri	24–26	Nov
Research paper due	Tue	7	Dec
Exam 3: Chapters 7–9	Tue	14	Dec, 5:00–7:00

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

I have two offices: most of the time I am in UH 2040. The phone there is 419 530 2138. I will be in UH 4080e for 2 hours before each class: Tuesdays 2:45–4:45. The phone there is 419 530 2138. 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. My email address is simply paul.hewitt@utoledo.edu, which is often the best way to contact me. 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 follow the book *Yearning for the Impossible*, by John Stillwell. This is not strictly a history book, but it does explore the historical development of important mathematical ideas in considerable depth.

Other resources:

- *Math through the Ages* (expanded edition), by W Berlinghoff and F Gouvêa. They begin 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. For further resources look at the section “What to read next” at the end of the book.
- MacTutor: <http://www-history.mcs.st-and.ac.uk>. This is by far the best online resource for the history of mathematics. There are biographies, mathematical topics, maps, and indexes organized by topic, chronology, or geography.
- Wikipedia: <http://wikipedia.org>. This is a great starting point for research, but use the information there with caution. Always verify the information with an independent resource.
- GG Joseph, *The Crest of the Peacock*, Princeton Univ Press, 2000. This is focused on the nonwestern roots of much of our mathematics. It provides much needed balance to western treatments of the history of mathematics.

Quizzes

There will be a short, 5-point quiz nearly every day, based on reading assignments which I will post on the web. I will give make-up quizzes only in case of a documented exigency, such as illness or a funeral. If you are sick the day of a quiz then you must call or email that same day if you expect to be able to make up the quiz. Otherwise you must arrange for a make-up quiz 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 quiz and do not contact me about it until afterwards then you will not be able to make up that quiz — you will get a 0 for that quiz.

Class discussion

You will receive up to 5 points per day for your active participation in the class discussion. To earn a full 5 points you must demonstrate that you have read the assigned reading thoroughly. You will lose points if you arrive late or leave early, or if you are rude or disruptive. I consider cell phone use during class extremely rude.

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.

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 you homework, fold the papers lengthwise and write on the outside

your name, Math 3510, Fall 2010, assignment number, due date

Research project

You have the option to do one research project, worth 100 points. You will be required to present your results to the class, and to submit a 3000-word paper, including an annotated bibliography. Your grade on the projects will depend on the thoroughness of your research, the organization and liveliness of your presentation to the class, and the detail and clarity of your written exposition, including the bibliography.

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 three exams, worth 100 points each. The exam dates are listed on the calendar above. Some of the exam questions will be multiple choice; some will be computational; some will require answers in complete sentences.

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:

- 300 points earns an A
- 270 points earns a B
- 240 points earns a C
- 210 points earns a D.

I expect to stick to this scale rather rigidly: 299 points will probably earn an A-.

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 withdrawal. If you are still registered after the 10th week you will get a grade in this course, whether or not you have stopped attending.