Administrative stuff

Course Website and Wooclap

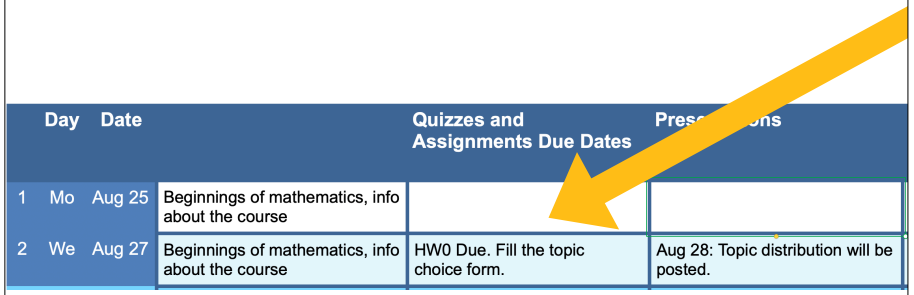
- We are going to use the interactive platform Wooclap for questions, polls and surveys.
- You will be able to answer the questions in this platform from a web browser or a smart phone app.

Course Website
https://www.math.stonybrook.edu/~moira/courses/mat336-fall2025/

Note: A quick way to find the course website is googling my name, go to my website and find there the link for the course.

Topics for paper and presentation

Everything is on the course schedule!



	Day	Date		Quizzes and Assignments Due Dates	Presentations
1	Mo	Aug 25	Beginnings of mathematics, info about the course		
2	We	Aug 27	Beginnings of mathematics, info about the course	HW0 Due. Fill the topic choice form.	Aug 28: Topic distribution will be posted.

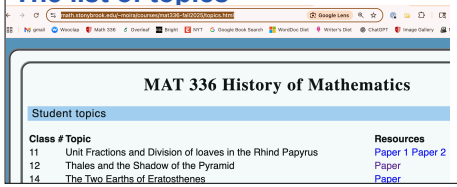
https://www.math.stonybrook.edu/~moira/courses/mat336-fall2025/schedule

There is a link to the course schedule in Brightspace

Your Research Assignment

- Presentation and paper on assigned math history topic
- **Deadline: Complete topic choice form by Thursday 8/28, 10am**
  I'll match topics to preferences to maximize "happiness"
- All papers have the same due date
- Find everything on the course schedule (linked in Brightspace):
  - Presentation dates
  - Topic choice form
  - All assignment deadlines
  - Topic list with sources

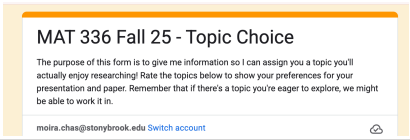
The list of topics


MAT 336 History of Mathematics

Student topics

Class #	Topic	Resources
11	Unit Fractions and Division of loaves in the Rhind Papyrus	Paper 1 Paper 2
12	Thales and the Shadow of the Pyramid	Paper
14	The Two Earths of Eratosthenes	Paper

The topic choice form


MAT 336 Fall 25 - Topic Choice

The purpose of this form is to give me information so I can assign you a topic you'll actually enjoy researching! Rate the topics below to show your preferences for your presentation and paper. Remember that if there's a topic you're eager to explore, we might be able to work it in.

moira.chas@stonybrook.edu Switch account

Topics We Will Discuss in this Course

Topics We Will Discuss in this Course

- The beginning of mathematics
- Number systems
- Sources for studying history.
- Ancient Egypt
- Ancient Mesopotamia
- Around the world
- Hellenic Mathematics
- Ancient and Medieval China
- Ancient and Medieval India
- Ancient and Medieval Islamic world
- European Renaissance
- Calculus
- Selected topics of modern mathematics

If you have a special interest in a math history topic, let me now. We might be able to cover it.

Topics (cont.)

We will go deeper than wider, really understanding mathematical thinking in selected areas rather than surveying everything superficially

The Presentation - Requirements

Foto credit:The Simpsons

- The goal is to **teach something to the class**.
- It is strongly encouraged to **include a learning activity** for the class to help. (you can have a few extra minutes in this case)
- **150 words**!!! at most in the slides (that is, about 15 per slide)
- Notes to help your memory are fine. However, the presentation cannot consist only of reading.

The Presentation - Support

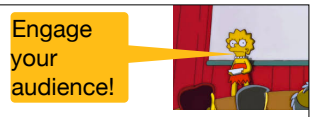


Foto credit:The Simpsons

- Speaking in public can be scary, but we will be a kind, supporting audience, rooting for you.
- If you need to break any of the rules to give a better presentation, discuss it with me beforehand.
- You are welcome to make an appointment with me to do a rehearsal of your presentation

More about the course

Communications spelled out

- **ALL** course questions go in the Discussion Forum so everyone can benefit.
- Use email only for private issues.
- Come to office hours! Office hours info is in the syllabus

What I expect from everybody (including myself) in the classroom

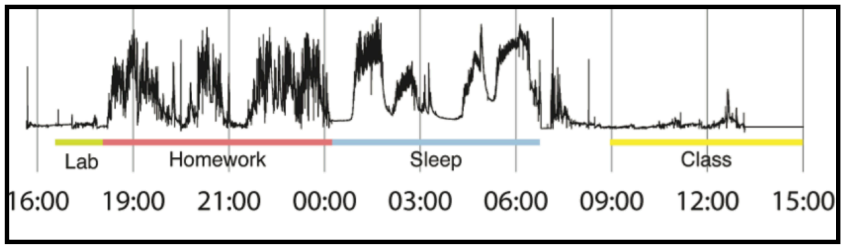
- Respect for each other and for the different societies and cultures we will find.
- Kindness
- Open mind.
- Effort
- Being present during lectures

I hope for growth mindset and curiosity.

Fixed mindset **Growth mindset**

Instead of thinking	Try this
I am not good at this	What am I missing?
I can't make it any better	I can improve if I keep trying
I made a mistake. Therefore, I am not smart.	What can I learn from this mistake?
This is too hard. I give up	This might take longer than I expected
The problem is that X is smarter than me	I'll try to learn how X does it.
This is too easy for me	Can I understand this more deeply?

Note: Lectures barely register - Active learning lights up the brain



Brain on lecture vs. brain on active learning

Table from an old slide of Eric Mazur (http://ericmazur.com/about.php)

A picture of a lecture I will work on **avoiding**

Image credit: Could not find it

contrast with

"I hear and I forget
I see and I remember.
I do and I understand"
Confucius

All the activities of class are tools to help you learn.

Active learning increases student performance in science, engineering, and mathematics

Scott Freeman[a,1], Sarah L. Eddy[a], Miles McDonough[a], Michelle K. Smith[b], Nnadozie Okoroafor[a], Hannah Jordt[a], and Mary Pat Wenderoth[a]

[a]Department of Biology, University of Washington, Seattle, WA 98195; and [b]School of Biology and Ecology, University of Maine, Orono, ME 04469

Edited* by Bruce Alberts, University of California, San Francisco, CA, and approved April 15, 2014 (received for review October 8, 2013)

To test the hypothesis that lecturing maximizes learning and course performance, we metaanalyzed 225 studies that reported data on examination scores or failure rates when comparing student

225 studies in the published and unpublished literature. The active learning interventions varied widely in intensity and implementation, and included approaches as diverse as occasional group

https://www.pnas.org/content/111/23/8410

More about me and this course

- The main point of Wooclap questions, forms, deadlines and class activities is encouraging you to think and learn, not to evaluate. All these activities also help me to gauge your understanding.
- Constructive feedback is welcomed by me, your instructor.
- Feel free (and encouraged!) to discuss with me any classroom dynamics issue that affects you.

There are no dumb questions

Tips to succeed in this course

The obvious

- Keep track of all due dates and plan ahead.
- Set aside focused, distraction-free time for this course.
- Complete all assignments and readings on time.
- Check Brightspace and Stony Brook email daily.

The less obvious

- Be **present** in the lectures.
- If any issue arises that interferes with our learning, please communicate on time. The more you wait, the harder will be to find a solution.
- I want you to succeed in this course. Help me help you.

Write down something you would like to know about the course. (Or just write that you have nothing to ask).

Take a moment to reflect on today's discussion. In a few sentences, summarize the key ideas and topics we explored—no need to include anything about course logistics or administrative details. If something stood out to you or sparked a lingering question, feel free to include that too! Make sure you save your text.

Image created by AI (DALL-E), illustrating something analogous to the use of AI to complete assignments