

These slides, as well as all the information about the course, can be found at:  
(shortcut: Google "Moira Chas")

<http://www.math.stonybrook.edu/~moira/mat311-spr17/>

Number Theory

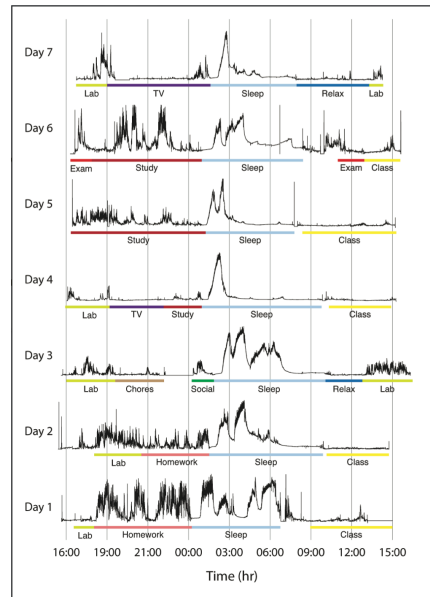
ADM

A quotation (sometimes attributed to Mark Twain)

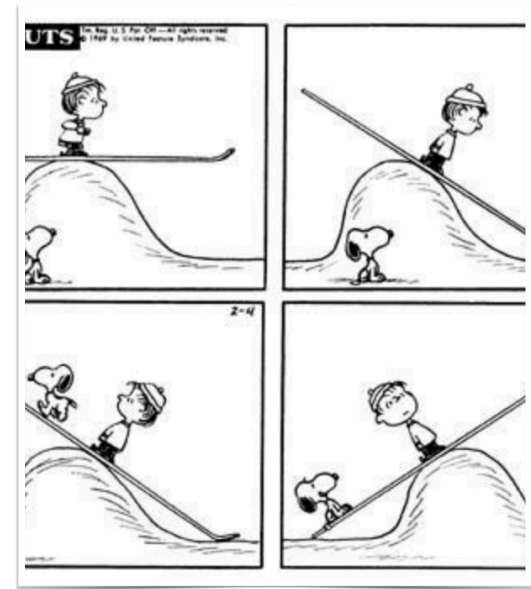
*“Lecturing is that mysterious process by means of which the contents of the note-book of the professor are transferred to the note-book of the student without passing through the mind of either.”*

Table by Eric Mazur

Let's make brain waves  
in this lecture.



Mathematics is not  
about numbers,  
equations,  
computations, or  
algorithms: it is about  
understanding”  
---William Paul  
Thurston  
(1946-2012)



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## Space, cyberspace and time coordinates

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- ❖ Moira Chas
- ❖ Best way to contact me:
  - ❖ moira.chas at stonybrook.edu
- ❖ Website:
  - ❖ <http://www.math.stonybrook.edu/~moira>
- ❖ Office: 3-119 Math Tower
- ❖ Office hours:
  - ❖ Tu: P-143- 10 to 11am
  - ❖ We: Office 3-119:10:00am -12pm
  - ❖ and/or by appointment (email me!).



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## Online Resources

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- ✦ Course Website:
  - ✦ [www.math.stonybrook.edu/~moira/mat311-spr17/](http://www.math.stonybrook.edu/~moira/mat311-spr17/)
    - ✦ Syllabus, homework schedule, exams dates, announcements.
  - ✦ [www.math.stonybrook.edu/~moira/mat311-spr17/LecturesPDF/](http://www.math.stonybrook.edu/~moira/mat311-spr17/LecturesPDF/)
    - ✦ Slides, and other materials (including the one you are reading)
- ✦ Blackboard:
  - ✦ Grades

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## Email communications

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- During the semester, I will send a few emails. Please make sure that you check the Stony Brook email account regularly.
- Email messages should be written in complete English sentences.

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## Book

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### Textbook:

Ivan Niven, Herbert S. Zuckerman, Hugh L. Montgomery, *An Introduction to the Theory of Numbers* Fifth Edition.

**Reading the assigned sections beforehand is required.**

The book will be in reserve in the Math Library.

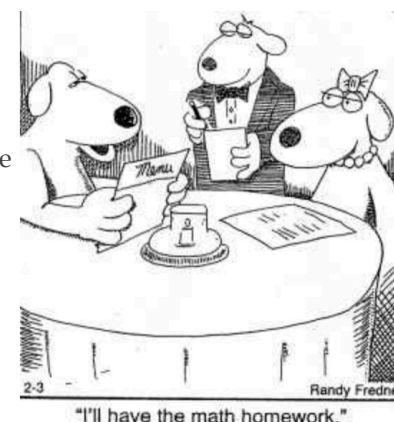
We will complement the textbook with handouts and other materials which will be posted in the course website.

## How can you succeed in this course?

- ❖ Dedicate around 6-8 hours/wk to this course (outside the classroom). During these hours, your goal should be to **understand** the material. To do so,
  - ❖ Read the assigned sections of the textbook beforehand (with paper and pencil handy).
  - ❖ Work on written homework
- ❖ Do not leave the homework for the last minutes before the deadline.
- ❖ Attend to lectures when you do, be *completely* in the class. (This implies no use of electronics (cell-phone is an electronic))
- ❖ Get help if you need it, as soon as you need it (office hours, MLC)

## Homework Assignments

- ❖ Submit the underlined problems on the schedule.
- ❖ The grader will do her best to grade all the submitted problems, but we might need to choose a subset of those
- ❖ You should submit homework in class, every Thursday.
- ❖ Each graded problem is worth 3 points.
- ❖ **Grader:** Alexandra Viktorova



## Written Homework must contain

- ❖ The statement of the problem
- ❖ An answer that is emphasized, if appropriate.
- ❖ In most problems if there is no work shown, there is no credit. In other words, an answer with no justification is not admissible (even if it is the correct answer!)

Homework should be legible and written in complete English sentences.

## Grades policy

- ❖ The final grade will be based on the midterms score (20% each) the final examination (40%) and homework and class participation (20%).
- ❖ Class participation means being active and present in class, asking relevant questions and working on the proposed activities
- ❖ The midterm and final will consist in problems similar to some of those of the homework.
- ❖ A student will get the better of two grades, one calculated from this weighted sum, the other based only on the (cumulative) final examination.

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## Is it allowed to work in teams?

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- ❖ You may discuss the assignments in this course with classmates, before working in the write-up.
- ❖ Each student's submission must be his or her own work.
- ❖ It is not allowed to browse the Internet for solutions.

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## ACADEMIC DISHONESTY

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- All work you submit for homework, final, or exams **MUST** be your own work.
- If you cheat or aid someone in cheating, you will automatically fail this course and be brought up on charges of academic dishonesty without warning.
- Cheat includes: presenting work of other as your own, copying other student work, facilitate that other student copies your work, use of notes, calculators and/or electronic devices during examinations.

If during the semester any issue arises that interfere with your learning, communicate it to me as soon as possible.

Many problems can be solved when addressed on time.

Do not wait until the last week of classes.