

Math 127: Concepts of Mathematics

Fall 2007 Syllabus

Dr. Irina Gheorghiciuc
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Office Hours: M 1:00 – 2:00 PM, W 4:30 – 6:00 PM, and by appointment
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Schedule:

Section 1 lectures: MWF 3:30 – 4:20 PM, Wean Hall 7500

Section 2 lectures: MWF 2:30 – 3:20 PM, Wean Hall 7500

Section A recitations (Chebolu): TR 11:30 – 12:20 PM, Porter Hall 226C

Section B recitations (Chebolu): TR 12:30 – 1:20 PM, Hamburg Hall 1002

Section C recitations (Allen): TR 1:30 – 2:20 PM, Porter Hall A19B

Section D recitations (Qi): TR 3:30 – 4:20 PM, Porter Hall 226A

Section E recitations (Noquez): TR 4:30 – 5:20 PM, Porter Hall 226C

Section F recitations (Weston): TR 9:30 – 10:20 AM, Doherty Hall 1211

Section G recitations (Tasse): TR 10:30 – 11:20 AM, Wean Hall 8427

Section H recitations (Wolf): TR 1:30 – 2:20 PM, Porter Hall A19

Section I recitations (Krausz): TR 1:30 – 2:20 PM, Doherty Hall 2105

Sections A and B Teaching Assistant:

Prasad Chebolu
Office: Physical Plant Building 342
Office Hours: T 5:00 – 6:00 PM, W 5:00 – 7:00 PM (see office above)
Email: pchebolu@andrew.cmu.edu

Section C Teaching Assistant:

Emily Allen
Office Hours: M 4:30 – 5:30 PM, W 4:30 – 5:30 PM (Wean 6215)
Email: eaallen@andrew.cmu.edu

Section D Teaching Assistant: James Qi
Office Hours: T 6:00 – 7:00 PM, R 2:30 – 3:30 PM (Wean 6215)
Email: jjq@andrew.cmu.edu

Section E Teaching Assistant: Tori Noquez
Office Hours: W 12:30 – 1:30 PM, R 11:00 – 12:00 PM (Wean 6215)
Email: vln@andrew.cmu.edu

Section F Teaching Assistant: Kim Weston
Office Hours: T 12:00 – 1:00 PM, W 11:00 – 12:00 PM (Wean 6215)
Email: kimberly@andrew.cmu.edu

Section G Teaching Assistant: Dan Tasse
Office Hours: T 7:00 – 9:00 (8th floor Wean sofas)
Email: dtasse@andrew.cmu.edu

Section H Teaching Assistant: Ben Wolf
Office Hours: M 7:30 – 8:30 PM, W 7:30 – 8:30 PM (8th floor Wean sofas)
Email: bswolf@andrew.cmu.edu

Section I Teaching Assistant: Brian Krausz
Office Hours: W 7:00 – 9:00 PM (8th floor Wean sofas)
Email: bkrausz@andrew.cmu.edu

Text: John P. D'Angelo & Douglas B. West
Mathematical Thinking, Problem-Solving and Proofs
2nd ed., Prentice Hall

Intended Lecture Content

Chapter	Title	Approx. Duration
1	Logic, Sets, Elementary Proof Tools	7 hrs
2	Mathematical Induction	4 hrs
3	Functions, Bijections and Cardinality	6 hrs
4	Combinatorics	7 hrs
5	Number Theory	7 hrs
6	Probability	4 hrs

Important Registration Dates

Remember that the last day to add/drop or audit a course without your Dean's permission is Monday, September 10. The deadline for registering for the pass/fail option is Monday, November 5. You may drop the course at any time before the last day of class; however, if you do so after November 5, you will be given a W grade for withdrawing.

Exams

There will be three non-comprehensive 50 minute midterms, all in class. The tentative days of the midterms are September 26 (Wednesday), October 26 (Friday), and November 16 (Friday). The last class is on December 7 (Friday).

There will be a comprehensive three-hour Final Exam at the end of the semester. The Final Exam will be scheduled by the Registrar.

The exams will consist of some new problems and some problems that you have seen in class or homework. Calculators will not be allowed during the exams.

If you want to dispute your midterm grade, you should return the graded exam to me or your TA during the same class in which you received it. Then, within the next week, you should meet with me during office hours to discuss the midterm.

There will be no make-up midterms except where mandated by university rules.

Homework

Homework is the most important part of this course. Homework will be posted each Thursday on the course website, www.math.cmu.edu/~gheorghi/math127.html, and will be collected the following week at the start of your Thursday recitation. Each homework will consist of 10 problems, but only 6 problems will be graded. We will not let you know which problems will be graded, so you will need to do all of them. There will also be effort points for the ungraded problems.

The problems should be written neatly and in the order they were assigned. If you use several sheets, please staple them. If your work is not legible, you will receive no credit. Missing argument in a proof will be considered a mistake. **Late homework will not be accepted.**

There will be 10 homework assignments this semester. Two lowest homework grades will be dropped. Each of the remaining eight assignments will be worth 2% of your course grade. It is very important that you do ALL the homework assignments because homework problems may appear in exams.

You may discuss your homework with other students (in fact, I encourage you to do so), but you **may not** copy another student's homework. The university's policy on cheating and plagiarism may be found at www.cmu.edu/policies/documents/Cheating.html.

If you want to dispute a homework grade, you should do so within two weeks from the time the graded homework was returned to you. Please discuss your homework grade with your TA during his/her office hours.

Extra credit problems will be assigned periodically throughout the semester.

Preparation

On average, you should expect to work 4-6 hours a week on this course in addition to attending class. You will be asked to study from the notes and from the book, not all the material in the notes will be contained in the book and vice versa. You will not need a calculator for this course.

I strongly encourage you to attend recitation sessions as they are an integral part of the course and will be devoted primarily to amplifying the material and working problems reasonably similar to the homework.

Please prepare your questions very well before you come to see your TA or me during our office hours. You should be familiar with all the definitions and results that you may need to answer your question.

Although I encourage students to study in groups, you will need to understand your classmates' solutions as your own in order to do well in the exams. I recommend that you try to solve each problem independently before asking for help from your classmates, TAs and me.

In addition to class, recitation sessions, and office hours, the University operates a walk-in Peer Tutoring Center in the Mudge Library and the Donner Reading Room on Sunday-Thursday evenings from 8:00 to 11:00pm.

Individualized tutoring and other help options are also available through Academic Development (www.cmu.edu/academic-development). This year they organize Concepts of Mathematics study groups. They meet once a week for 1 – 1.5 hours. Study groups are facilitated by a student who has taken the course, obtained an A in it, has a cumulative average of 3.5 or higher and is a math major. The staff of Academic Development will begin taking requests from students to join a study group on September 5 in Cyert Hall B5. For additional information contact Debra Brindis, AC/SI Coordinator, at debrab@andrew.cmu.edu.

Grade

Here is the breakdown of the final grade:

Assessment Type	Value
Homework	16%
3 Midterms	54%
Final Exam	30%
Extra Credit	3%
103%	

The tentative scheme for your grade is (the cutoffs may be lowered slightly, but will not be increased):

Percent	Letter
88-100	A
78-87	B
68-77	C
58-67	D