

Math 142b Spring 2014: Introduction to Analysis II

MWF 1-1:50pm, **HSS 1330**

Professor D. Rogalski

1. CONTACT INFORMATION

Prof. Rogalski's Office: 5131 AP&M

E-mail: drogalsk@math.ucsd.edu

Class web site:

www.math.ucsd.edu/~drogalsk/142b.html

Check here for announcements, homework assignments, and the lecture and exam schedules. You can also find a link by following “resources” and then “course websites” from the math department homepage (link will not become active until sometime during week 1).

Office hours: TBA

Section Leader 1: Rob Won (6321 AP&M)

E-mail: rwon@ucsd.edu

Meeting Times: **Tu 2-2:50pm, 3-3:50pm, WLH 2112**

Office hours: TBA

Section Leader 2: Jay Cummings (6321 AP&M)

E-mail: jjcummings@ucsd.edu

Meeting Times: **Tu 4-4:50pm, WLH 2112**

Office hours: TBA

2. BASIC COURSE INFORMATION

This syllabus is similar to the syllabus for last quarter's Math 142a, and most of the students in this class are continuing on from that class. The most important changes to this syllabus from last quarter's syllabus are **bolded** on this syllabus.

- *Course description and placement information* This is a second class in analysis, or in other words the theory of calculus with proofs. The main topics will be **integration, taylor series, and sequences and series of functions**.

- *Prerequisites* The prerequisite is **Math 142a** or **Math 140a**. If you feel that this is the right course for you even though you have not yet passed the prerequisite, please come see me so we can discuss your particular case.

- *Textbook* The textbook is *Advanced Calculus* by Patrick M. Fitzpatrick, 2nd Edition. We will cover most of **Chapters 6, 8, and 9** of the text in this course. A tentative calendar of what sections will get covered when will be updated on the website as we go. It is important that you read the text as well as attend the lectures.

- *Discussion section* This is your opportunity to get a review of some of the basic concepts, ask questions about the homework, and see worked examples, in a smaller group. The section will meet for the first time on **Tuesday, April 1** (week 1).

- *Homework* Homework will be assigned weekly; the list of problems for the week will be posted on the class website. Homework will be due on Fridays in the homework box which your TA will set up in the basement of AP&M; the deadline for handing it is 5pm. Please hand in the homework to the box with your TA's name. Note that the first homework is due quickly, at the end of week 1. I plan to have 7 graded homework assignments, with no homework due the weeks we have midterm exams, and an eighth and final HW set not handed in for a grade. Late homework will not be accepted, but the lowest two homework scores will be dropped. **Note that e-mailing a scanned copy of your HW to the TA is not an acceptable form of submission; such HW sets will not be graded.** I try to assign a mix of straightforward problems which help you to work through the definitions and concepts, together with some more challenging problems.

You should expect to spend a lot of time thinking about some of these exercises, doing scratch work and playing with examples, until you start to get insight into the problem. This process does not have time to play itself out if you start the homework at the last minute. It is extremely important for this reason that you start the homework early. This will also allow you to take better advantage of the office hours of the instructor and TAs.

The write-up of the solutions you submit should be neat and well-organized. I usually recommend a first draft where you write out a solution which is as messy as you want, scratch things out if necessary, etc., and then a final draft in which you rewrite your solutions carefully. If your proof is not legible or we cannot follow it, then we can't give your credit. *See the section below on academic honesty for more rules/advice about homework.*

- *Exams* The in-class 50-minute midterms will be on **Friday 4/25/14** (week 4) and **Friday 5/23/14** (week 8). The final exam is on **Thursday 6/12/14** from 11:30am-2pm. You are required to provide your own bluebooks for all exams.

For each of the three exams you may bring one standard size double-sided page of notes (8-1/2 by 11 inches).

No aids other than your one page of notes, such as books, calculators, etc., are allowed during exams.

Midterm 1 will not be graded and returned before the drop deadline of week 4. If you are not sure if you should continue in the course, you should use your performance on the first homeworks as a guide, and/or discuss your situation with me.

When exams are handed back, you should look them over and if you have concerns about the grading, ask your TA about it before the exam leaves the room. Once the exam goes home with you, regrades will not be considered.

- *Office Hours* Both I and your TAs will have several office hours a week at times TBA where we will be available for your questions. Please make an appointment (either ask in person or send an e-mail) with one of us if you cannot make the regularly scheduled office hours.

- *Grading* Your final average will be calculated by using either the percentages HW 20%, Midterm 1 20%, Midterm 2 20%, Final Exam 40%, or else HW 20%, Best of 2 midterms 20%, Final Exam 60%, whichever is better. Because of this policy, no makeup midterms will be given for any reason. Your final grade will be at least as good as the grade given by the following standard scale:

97	93	90	87	83	80	77	73	70	60
A+	A	A-	B+	B	B-	C+	C	C-	D

The final grading scale will almost surely be more lenient than this, depending on the class average; the average grade in an upper division math course like this tends to be some sort of B/B-, though it could be higher or lower depending on the particular class.

3. ACADEMIC HONESTY

Academic honesty is important to me and I expect you to abide by the university's policies. Violations academic dishonesty will be reported and your grade may be lowered accordingly. Copying from or otherwise collaborating with a neighbor, using unapproved notes, calculators, or other aids, or having someone take the exam for you, are examples of serious violations.

Here are my honesty rules on homework, which may be less obvious to you.

1. The homework you hand in should be your own written work, and your own only. It is not acceptable to copy word for word, or paraphrase, the work of another student in the class, or a solution found elsewhere (for example on the internet or in a solutions manual), and hand it in as your own work. Please note that such dishonesty is extremely likely to give you an advantage anyway, since the homework score is a small percentage of the grade and a poor understanding of the homework typically leads to poor exam scores.

2. It is fine to talk to others about the homework, just be careful not to violate rule 1. You should not write up the homework as a group, because your written work should reflect your own final understanding of the problems. Getting help/advice from the professor/TA/classmates on especially difficult problems that

you have already thought hard about yourself and are stuck on is OK. But remember that the more time you put into thinking hard about the problems yourself, the more prepared you will be for exams.