

**MATH H140B/205B: INTRODUCTION TO GRADUATE ANALYSIS  
SYLLABUS - WINTER 2019**

**Instructor:** Paata Ivanisvili, Ph.D.

**E-mail:** [pivanisv@uci.edu](mailto:pivanisv@uci.edu)

**Webpage:** <https://www.math.uci.edu/~pivanisv/teaching.html>

**Office:** Rowland Hall 510K

**Office Hours:** Wednesday and Thursday 11:00-12:00.

**Lecture:**

- RH - Rm. 306 - MTuWTh 10:00-10:50am

**Teaching Assistant:** Amir Vig

**E-mail:** [bvig@uci.edu](mailto:bvig@uci.edu)

**Webpage:** <http://sites.uci.edu/amirvig/>

**Office:** Rowland Hall 590

**Office Hours:** Wednesday 3–4pm. Friday 3–5pm.

**Discussion:**

- RH - Rm. 306 - F 10:00-10:50am

**Midterm Exam:** TBA, in class.

**Final Exam:** TBA, in class (9-11 AM)

**Course description:** (for the entire 205 Series) Construction of the real number system, topology of the real line, concepts of continuity, differential and integral calculus, sequences and series of functions, equicontinuity, metric spaces, multivariable differential and integral calculus, implicit functions, curves and surfaces.

**Textbook:**

- “Principles of Mathematical Analysis” (3rd Edition) by Walter Rudin.

Additional references:

- “Understanding Analysis” by Stephen Abbott (more motivating)
- “Mathematical Analysis I” by Vladimir Zorich (Rudin’s style)
- “Introduction to Analysis in one variable” by Michael E. Taylor.

**Grading:** The final grade will be computed with the following weights:

Weekly Homework (lowest score dropped)	35%
Midterm Exam	30%
Final Exam	35%

If you meet the following thresholds, you’ll be guaranteed the corresponding grade:

90%	A+/-
80%	B+/-
70%	C+/-
60%	D

These thresholds will be adjusted, if needed, at the end of the course (only in your favor).

**Homework:** There will be 5 problem sets during the quarter, due every Friday at the beginning of the hour. Homework assignments will be posted on the course webpage. While the number of problems on each assignment will vary, only 3 problems from the assignment will be graded and each one will be worth 10 points, making each homework assignment worth 30 points. Late homework will not be accepted.

**Homework formatting:** Homeworks must be typed.

**Exams:** There will be one midterm exams (in class) and one final exam. You must bring a photo ID to each exam. The final exam is scheduled in March TBA (9-11 AM, 306H).

**Policy on out-of-sequence exams and missed quizzes:** We are only able to accommodate a limited number of out-of-sequence exams due to limited availability of rooms and proctors. For this reason, we may approve out-of-sequence exams in the following cases:

- A documented medical excuse.
- A University sponsored event such as an athletic tournament, a play, or a musical performance. Athletic practices and rehearsals do not fall into this category. Please have your coach, conductor, or other faculty advisor contact your instructor.
- A religious holiday.
- Extreme hardship such as a family emergency.

We will not be able to accommodate out-of-sequence exams, quizzes, and finals for purposes of more convenient travel, including already purchased tickets. Please note again the date of the final and plan any travel accordingly. Scheduled out-of-sequence exams and quizzes (those not arising from emergencies) must be taken before the actual exam. Makeups must occur within one week of the regularly scheduled exam or quiz, otherwise a zero score will be given.

**Academic Honesty:** Academic honesty is a requirement for passing this class. Any student who compromises the academic integrity of this course is subject to a failing grade. The work you submit must be your own. Academic dishonesty includes, but is not limited to copying answers from another student, allowing another student to copy your answers, communicating exam answers to other students during an exam, attempting to use notes or other aids during an exam, or tampering with an exam after it has been corrected and then returning it for more credit. If you do so, you will be in violation of the UCI Policies on Academic Honesty (see <https://aisc.uci.edu/>). It is your responsibility to read and understand these policies. Note that any instance of academic dishonesty will be reported to the Academic Integrity Administrative Office for disciplinary action and is cause for a failing grade in the course. If you wish to record the lectures in any way, you must obtain prior permission.

**Important dates:** <https://www.reg.uci.edu/calendars/quarterly/2018-2019/quarterly18-19.html>

Below is the schedule for covering topics and assignments during the quarter. All are subject to change as the quarter progresses.

1/7 - 1/11 (Week 1)	Chapter 6
1/14 - 1/18 (Week 2)	Chapter 6 (HW due)
1/21 - 1/25 (Week 3)	Chapter 6 (HW due)
1/28 - 2/1 (Week 4)	Chapter 7 (HW due)
2/4 - 2/8 (Week 5)	Chapter 7 (HW due)
2/11 - 2/15 (Week 6)	Chapter 8 (HW due)
2/18 - 2/22 (Week 7)	Chapter 8 (HW due)
2/25 - 3/1 (Week 8)	Chapter 8 (HW due)
3/4 - 3/8 (Week 9)	Chapter 9 (HW due)
3/11 - 3/15 (Week 10)	Chapter 9 (HW due)