

# Math 131B FALL 2016

## Analysis

MWF 12:00-12:50PM Math Sciences Building 5137

**Instructor:** Evan Randles  
**Email:** randles@math.ucla.edu  
**Course Websites:** <https://ccle.ucla.edu/course/view/16F-MATH131B-2>  
**Personal Website:** <http://www.math.ucla.edu/~randles>  
**Office:** MS 6322  
**Office hours:** Monday 4:00-6:00pm & Wednesday 3:00-4:00pm  
**Teaching Assistant:**      **Sections/Location:**      **Time:**

Eric Primozic                      2A: Geology 6704              Tuesday, 12:00pm-12:50pm  
eprimozic@math.ucla.edu

TA office hours will be announced in section and posted on the course website.

**Course Description:** This course is a continuation of MATH 131A. We will treat the topics in real analysis from a more general perspective than MATH 131A. Topics include: metric spaces, point-set topology, function spaces, convergence of sequences of functions, power series, analytic functions, and Fourier analysis. This course should develop your ability to write rigorous proofs.

**Textbook:** T. Tao, Analysis II, 3rd edition

**Prerequisites:** MATH 131A (Analysis) and MATH 115A (Linear Algebra).

**Grading:** The final grade is determined as the maximum of the following two schemes.

Scheme 1:		Scheme 2:	
Homework	20%	Homework	25%
Midterm	30%	Final Exam	75%
Final Exam	50%		

Letter grades will not be assigned until the end of the quarter, at which point your composite numerical score will be converted into a letter grade based on class ranking, using the department guidelines for this course.

**Exams:** All exams will be in MS 5137 unless otherwise specified

Midterm              Friday, October 28th, 2016, 12:00pm-12:50pm, (in class, end of week 5).  
Final Exam:      Wednesday, December 7th, 3:00-6:00 PM.

There are no make-up midterms. If you miss the midterm, the weight from this midterm will be distributed between the homework and the final exam (see the grading scheme above). The date of the final exam cannot be changed. You must attend the final exam in order to pass the class.

Students must bring their UCLA ID cards to the midterms and to the final exam. Phones must be turned off. Cheating on an exam results in a score of zero on that exam.

### Homework:

- Homework will be assigned weekly and collected in section.
- Late homework is not accepted.
- To account for illness, emergencies, etc., your lowest homework score will be dropped.
- To succeed in this course, it is crucial that you take the homework assignments very seriously. You are permitted to discuss homework with your classmates and to consult other textbooks, however, I discourage you from searching for solutions on the internet –such behavior will only hinder your learning experience. What you turn in must be your own.
- Your solutions (proofs, etc.) should be clearly written and grammatically correct. In particular, points may be deducted for persistent errors in grammar and punctuation, e.g., incomplete sentences.
- Homework may be handwritten or typed in L<sup>A</sup>T<sub>E</sub>X; however, handwritten homework must be legible. Illegible homework will not be graded and returned with a score of zero.
- You are free to use any results from lecture, up to the things that we have covered in class. If you use results from the book that have not appeared in lecture, you must also produce the proof from the book, written in your own words.

### Course Policies:

- **Schedule:** We will approximately follow the standard outline for this course, available at <http://www.math.ucla.edu/ugrad/courses/math/131B> . Specific reading will be assigned for each lecture.
- **Exam coverage:** This course is 27 lectures long, excluding exams. The first midterm will cover the material of approximately Lectures 1-9, the second midterm will cover the material of approximately Lectures 10-19. The final exam will be roughly sixty percent from the material of Lectures 20-27 and forty percent from the preceding lectures. More specific guidance will be given as we approach the exams.
- **Regrades:** Requests for regrades of midterms will be considered up to fourteen days after the midterm is returned, and should be turned in to me in writing (preferably typed) and signed. Please make sure to look over your graded work carefully before the time limit passes.
- **Questions and Getting Help:** For mathematical questions, you are encouraged to attend office hours (both mine and those of your TA).
- **Use of Calculators:** You do not need a calculator for this course, and none are permitted on quizzes/exams.

**Academic Integrity:** Please review the regulations at the following website:

<http://www.deanofstudents.ucla.edu/Student-Conduct>