32B. Calculus of Several Variables Lecture 2, Winter 2020

1. General information

Instructor: Sangchul Lee

Email: sos440@math.ucla.edu (Please mention Math 32B when emailing me.)

Webpage: https://www.math.ucla.edu/people/visiting/sos440

Office: Math Sciences Building (MS) 6322

Office Hours: (Tentative) Wednesday 1:00-2:30 pm, Thursday 4:00-5:30 pm,

or any other time by appointment.

Teaching assistants:

Ziheng Ge (Office: MS 3973)
Discussion section 2A: Tuesday, 10:00–10:50 am, Geology Building 6704
Discussion section 2B: Thursday, 10:00–10:50 am, Public Affairs Building 2232
Alexander Johnson (Office: MS 2905)
Discussion section 2C: Tuesday, 10:00–10:50 am, Mathematical Sciences 5147
Discussion section 2D: Thursday, 10:00–10:50 am, Dodd Hall 167
Christian Carrick (Office: MS 3931)
Discussion section 2E: Tuesday, 10:00–10:50 am, Physics and Astronomy Building 1749
Discussion section 2F: Thursday, 10:00–10:50 am, Public Affairs Building 2242

Lectures: MWF, 10:00–10:50 am, Bunche Hall Room 1209B

Textbook: J. Rogawski, Multivariable Calculus, (4th Edition), W.H. Freeman & CO.

Prerequisite: Courses 31B & 32A with a grade of C- or better.

CCLE: https://ccle.ucla.edu/course/view/20W-MATH32B-2

Course Website: https://www.math.ucla.edu/ugrad/courses/math/32B

2. Grading

Your final grade will be computed (and curved) as the maximum of the following two schemes:

- Scheme 1: 10% Homework + 35% (Max. of two midterms) + 55% Final Exam
- Scheme 2: 10% Homework + 25% Midterm 1 + 25% Midterm 2 + 40% Final Exam

3. Exams

During both the midterms and the final exam, you may not use books, notes, calculators, cell phones, or anything other than pen/pencil. There will be two midterms during the regular class

hours. There will be no make-up exams for missed midterms. If you miss one midterm for a legitimate reason, your final grade will be computed using the first scheme above. You must take the final exam in order to pass the class. Make-ups for the final exam are permitted only under exceptional circumstances, as outlined in the UCLA student handbook. The exams are scheduled for the following dates:

- Midterm 1: Monday, February 3
- Midterm 2: Friday, February 28
- Final exam: Tuesday, March 17, 3:00–6:00 pm.

Please make sure you have no time conflicts and bring your ID cards to all exams.

4. Homework

Homework is very important to understanding the class materials and you should be able to clearly explain all your solutions to all the homework problems. Homework will be collected every Friday in class, and will be graded and returned to you in your discussion sections, usually the following week. The assignments will be announced in class, and made available on the course website. **Late homework will not be accepted without exceptions,** but your lowest two homework scores will be dropped in the computation of your final grade. Your homework must be stapled and clearly labeled with your name, ID, and section number.

32B Lecture 2 Schedule of Lectures (Tentative)

Week	Date	Lecture #	Sections	Topics
	Mon Jan 6	1	16.1	Integration in two Variables
1	Wed Jan 8	2	16.1	Integration in two Variables
	Fri Jan 10	3	16.2	More General Regions
2	Mon Jan 13	4	16.3	Triple Integrals
	Wed Jan 15	5	12.3	Polar Coordinates
	Fri Jan 17	6	16.4	Integration in Polar Coordinates
3	Mon Jan 20	Holiday		Martin Luther King, Jr. Day
	Wed Jan 22	7	16.4	Integration in Polar Coordinates
	Fri Jan 24	8	16.5	Applications of Multiple Integrals
4	Mon Jan 27	9	16.6	Change of Variables
	Wed Jan 29	10	16.6	Change of Variables
	Fri Jan 31	11	17.1	Vector Fields
5	Mon Feb 3	Midterm 1		In class. (Should cover 12.3 and 16.1-6)
	Wed Feb 5	12	17.1	Vector Fields
	Fri Feb 7	13	17.2	Line Integrals
6	Mon Feb 10	14	17.2	Line Integrals
	Wed Feb 12	15	17.3	Conservative Vector Fields
	Fri Feb 14	16	17.3	Conservative Vector Fields
7	Mon Feb 17	Holiday		Presidents' Day
	Wed Feb 19	17	17.4	Parametrized Surface
	Fri Feb 21	18	17.4	Parametrized Surface
8	Mon Feb 24	19	17.5	Surface Integrals
	Wed Feb 26	20	18.1	Green's Theorem
	Fri Feb 28	Midterm 2		In class. (Should cover 17.1-5)
9	Mon Mar 2	21	18.1	Green's Theorem
	Wed Mar 4	22	18.2	Stokes' Theorem
	Fri Mar 6	23	18.2	Stokes' Theorem
10	Mon Mar 9	24	18.2-3	Stokes' Theorem, Divergence Theorem
	Wed Mar 11	25	18.3	The Divergence Theorem
	Fri Mar 13	26	18.3	The Divergence Theorem
Finals	Tue Mar 17	Final Exam		3:00-6:00 pm (15:00-18:00). Rooms will be announced later.