## Syllabus, Math 118, Fall 2020 Sections 39429, 39450

Instructor: Michael A. Hall Email: hallma@usc.edu Office: Kaprielian 447

**Lectures:** (via Zoom) Section 39429: MWF 9:00-9:50 Section 39450: MWF 1:00-1:50

Office Hours: (via Zoom) TBA

Prerequisites: Math 108, Math 117, or equivalent

#### Teaching Assistants / Discussion Section:

Section 39429 Section 39450

Wenqian Wu (wenqian@usc.edu) Pengbin Feng (pengbinf@usc.edu)

TuTh 10:00-10:50 TuTh 2:00-2:50 TuTh 11:00-11:50 TuTh 3:00-3:50

#### Math Center / TA Office Hours:

During the pandemic, the Math Center (https://dornsife.usc.edu/mathcenter/), which is normally located in KAP 263, will be available online via Zoom, from 8am - 7pm Monday - Thursday, and 8am - 5pm on Friday. In the first or second week of classes, your TA will announce office hours which they will hold in the Math Center. You can also visit the Math Center at other times to get help from whoever is there.

**Textbook**: Hughes-Hallett et al, Applied Calculus, 6th Edition.

*Note:* You will need to purchase an access code for WileyPLUS to complete the online homework. This will also provide you with access to an electronic version of the textbook, along with some additional learning resources. You may buy a physical copy of the textbook if desired, but it is not necessary.

#### Course Content

We will cover most of Chapters 1, 2, 3, 4, 5, 6, 8, and 16 of the textbook, including derivatives, integrals, extreme values and applications for functions of one or several variables. If you purchase a physical copy from the USC Bookstore, it should come bundled with a supplement containing Chapter 16.

## Learning Outcomes

Students will be able to build and analyze mathematical models combining power functions, exponentials, and logarithms into functions of one or several variables. They will be able to compute derivatives, integrals, and extreme values of such functions, and apply these procedures to business scenarios.

### Online Platforms

Blackboard (https://blackboard.usc.edu)

Blackboard will be the main hub for the course. You will find announcements, handouts, and the course gradebook, as well as links to Zoom meetings, Zoom recordings, and the other platforms below.

WileyPLUS (https://www.wileyplus.com)

For completing the online homework assignments and accessing the textbook online.

The easiest way to register is to click one of the links on Blackboard and follow the prompts.

Gradescope (https://www.gradescope.com)

For submitting solutions to quizzes and exams, and receiving grades and feedback.

All submissions should be in PDF format, and you must complete the "page-matching" step to indicate where your solutions are. You may need to obtain an application that allows document scanning with a smartphone.

Zoom (https://www.zoom.com)

For attending lecture, discussion section, office hours. Recordings of all lectures and discussion sections will be available via Blackboard.

Zoom etiquette: You should have a working camera, microphone, and internet connection. During class meetings please have your camera on and be ready to participate. If necessary you can access Zoom from a smartphone. Please try to reduce background noise as much as possible, and keep your microphone muted when not speaking.

#### Additional resources

Desmos graphing calculator (https://www.desmos.com/calculator)

An online graphing calculator with many features for manipulating visualizations.

Wolfram Alpha (https://www.wolframalpha.com)

A powerful calculational engine capable of performing many procedures in calculus.

### Grading

An overall percentage score will be calculated according to the following breakdown:

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10% Homework 15% Quizzes 40% Midterm Exams (20% each) 35% Final
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Your overall percentage will be used to determine your final grade. Individual assignments and exams will not be curved, but the distribution of overall percentage scores will be taken into account when assigning final grades.

The approximate grade ranges are:  $A \ge 90\%$ , B 80-89%, C 70-79%, D 60-69%, with pluses and minuses given appropriately. The cutoffs may be adjusted lower to reflect the distribution, but e.g. 90% will guarantee at least an A-, 80% at least a B-, etc.

**Note:** Grading issues with should be raised at most one week after the assignment is graded.

#### Homework

Most weeks there will be homework due Tuesday night. Homework will be assigned online via WileyPLUS, and may still be submitted after the official deadline, but with a 50% penalty.

It is recommended that you keep a notebook with your solutions to the homework problems to help you study later, but this will not be collected or graded.

#### Quizzes

There will be weekly "quizzes" covering the same material as the corresponding homework assignment. Because of the pandemic, these will not be timed quizzes in the usual fashion. While the quizzes will be administered in your Thursday discussion, you do not have to turn in your solutions immediately. Instead, you will have until the end of the day to correct your solutions and polish your presentation before submitting via Gradescope.

It is recommended that you use the quizzes as practice for solving problems under time pressure, and for getting feedback on your written work, as the online homework will only tell you whether you've solved the problem correctly or not.

#### **Examinations**

There will be two midterm exams, and one final exam.

Midterm 1: Wednesday, September 23rd Midterm 2: Wednesday, November 4th

Midterm exams may not be rescheduled except in cases of emergency, or with the instructor's approval two weeks in advance and with supporting documentation. You should notify me as soon as you know about a potential conflict.

Final Exam: Wednesday, November 18th, 2-4pm Note that this is an exceptional time.

The final is common to all sections of Math 118. You must take the final to pass the course.

## Learning Environment

Students should strive to create a friendly academic atmosphere. Disruptive behavior will not be tolerated, nor disparaging or hostile comments toward other students.

## Disability Services

Any student requesting academic accommodations based on a disability is required to register with Disability Services and Programs (DSP) each semester. A letter of verification for approved accommodations can be obtained from DSP. Please be sure the letter is delivered to me as early in the semester as possible. DSP is located in GFS 120 and is open from 8:30am until 4:30pm, Monday through Friday. The phone number for DSP is (213) 740-0776, and their website is https://dsp.usc.edu/.

#### Statement on Academic Conduct

Plagiarism – presenting someone else's ideas as your own, either verbatim or recast in your own words – is a serious academic offense with serious consequences. Please familiarize yourself with the discussion of plagiarism in SCampus in Part B, Section 11, "Behavior Violating University Standards" policy.usc.edu/scampus-part-b. Other forms of academic dishonesty are equally unacceptable. See additional information in SCampus and university policies on scientific misconduct, http://policy.usc.edu/scientific-misconduct.

## **Additional Support Systems:**

Student Counseling Services (SCS)

(213) 740-7711

http://engemannshc.usc.edu/counseling

Free and confidential mental health treatment for students, including short-term psychotherapy, group counseling, stress fitness workshops, and crisis intervention.

National Suicide Prevention Lifeline

(800) 273-8255 on call 24/7

http://www.suicidepreventionlifeline.org

Provides free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week.

Relationship and Sexual Violence Prevention Services (RSVP)

(213) 740-4900 on call 24/7

http://engemannshc.usc.edu/rsvp

Free and confidential therapy services, workshops, and training for situations related to gender-based harm.

Sexual Assault Resource Center

http://sarc.usc.edu

For more information about how to get help or help a survivor, rights, reporting options, and additional resources, visit the website:

Office of Equity and Diversity (OED)/Title IX Compliance

(213) 740-5086

http://equity.usc.edu

Works with faculty, staff, visitors, applicants, and students around issues of protected class.

Bias Assessment Response and Support

http://studentaffairs.usc.edu/bias-assessment-response-support

Incidents of bias, hate crimes and microaggressions need to be reported allowing for appropriate investigation and response.

Student Support and Advocacy

(213) 821-4710

http://studentaffairs.usc.edu/ssa

Assists students and families in resolving complex issues adversely affecting their success as a student, e.g. personal, financial, and academic.

Diversity at USC

http://diversity.usc.edu

Information on events, programs and training, the Diversity Task Force (including representatives for each school), chronology, participation, and various resources for students.

USC Emergency Information

http://emergency.usc.edu

Provides safety and other updates, including ways in which instruction will be continued if an officially declared emergency makes travel to campus infeasible.

USC Department of Public Safety

UPC: (213) 740-4321

http://dps.usc.edu

HSC: (323) 442-1000

Provides overall safety to USC community.

24-hour emergency or to report a crime.

# Approximate course schedule

(Holidays in boxes . Midterm exam dates in **bold**.)

Week	Month	Dates	Material
1	Aug	17, 19, 21	1.1 - 1.4
2	Aug	24, 26, 28	1.5 - 1.9
3	Aug/Sep	31, 2, 4	2.1 - 2.5
4	Sep	7, 9, 11	3.1 - 3.4
5	Sep	14, 16, 18	4.1 - 4.4
6	Sep	21, <b>23</b> , 25	Midterm 1
7	Sep/Oct	28, 30, 2	5.1 - 5.6
8	Oct	5, 7, 9	6.1 - 6.3
9	Oct	12, 14, 16	6.5 - 6.7
10	Oct	19, 21, 23	8.1 - 8.3
11	Oct	26, 28, 30	8.4 - 8.5
12	Nov	2, 4, 6	Midterm 2
13	Nov	9, 11, 13	16.1 - 16.2

# **Drop Deadlines**

September 4th
Drop without a W

November 6th Drop with a W

### **Exam Dates**

September 23rd Midterm 1

November 4th Midterm 2

November 18th Final Exam, 2-4pm