

Department of Mathematics  
University of South Carolina  
Course Syllabus

## Office Hours and Contact Information

INSTRUCTOR	EMAIL	OFFICE	OFFICE HOURS
Chase Fleming	cf17@email.sc.edu	LeConte 314A	TBD

## Course Details

CRN	SEC	TIME	DAYS	ROOM
49772	033/Q33	11:40 AM - 12:55 PM	TTh	Leconte 113

**Prerequisite:** Qualification through the Math Placement Test or through a grade of **C** or better in MATH 111, 111I, or 115.

### Textbook and Materials:

**Textbook:** *Applied Calculus* (6<sup>th</sup> ed), Hughes-Hallett, Gleason, Lock, Flath, et al., Wiley, 2018. ISBN: 978-1-119-39935-3.

**Online Homework:** Given and submitted through the course page in Blackboard. (Mandatory)

**Calculator:** Students will need a scientific calculator that can evaluate exponentials and logarithms. The TI-83/84 is highly recommended. But in most cases, these calculations can be done using your phone or web based calculator. Use of the TI-89, TI-Nspire, or other calculator with a built-in CAS (computer algebra system) is prohibited.

**Learning Outcomes:** Upon successful completion of this course, students should be able to:

Recall basic mathematical terms related to elementary algebraic, exponential, and logarithmic functions, and derivatives and integrals of such functions and express these terms in correct context.

Apply the methods of calculus to solve applications involving maxima, minima, rates of change, motion, work, and area under a curve.

Verbally interpret data given as graphs, tables, and equations and put into words the relationship between a function and its derivative or integral given in these forms as well.

Utilize a graphing calculator to solve problems, locate maxima and minima of a function, and analyze change in a function.

## Course Structure, Expectations, and Policies

**Structure:** Per new University of South Carolina recommendations, our class will be streamed and recorded virtually through Blackboard Collaborate Ultra. Class, as it stands, will consist of lecturing via document camera with printed notes for students to follow along with. Concurrently, students will be given problems to answer throughout the lecture that will be submitted at the end of class. These problems will serve both as attendance and participation.

**Office Hours:** Office hours will take place virtually using Blackboard Collaborate Ultra. I can also be reached during Math Tutoring Center hours. I will post this information as soon as it becomes available to me. Also, I am available by appointment. If you insist on in person office hours we may arrange it, but I recommend that all appointments be made for online. For appointments, just email me and ask me.

**Attendance:** Attendance will be taken daily. Note that streaming the class lectures online via Blackboard Collaborate Ultra allows students to participate in class virtually. Attendance will be recorded via submission of daily problems given at the start of class. If there are more than 4 unexcused absences, I reserve the right to deduct a full letter grade students' final grade. For university wide attendance policy, see: <http://bulletin.sc.edu/content.php?catoid=52&navoid=1280> Attendance\_Policy

Excused - Athletic, military, illness, family illness or death, legal, professional obligation (WITH VALID DOCUMENTATION)

Unexcused - No documentation, does not include issues above.

**Participation:** You will be expected to participate in all class activities, whether your are in class physically or attending virtually. Participation includes paying attention during class, participating in classroom discussions, completing written assignments, and asking relevant questions. Participation outside of the classroom, i.e. reading the chapter, doing homework, etc., is also expected. You will be expected to respect the instructor, your fellow students, and any guests throughout the semester by listening respectfully when they are speaking.

**Face Coverings:** Face coverings protect you and your classmates in case the wearer is unknowingly infected but does not have symptoms. Faculty, students and staff are required to wear an appropriate face covering in all classrooms and in other designated areas on campus. Face coverings should cover your nose and mouth in a community setting. Students with conditions that prohibit them from wearing a face covering must register with the Student Disabilities Resource Center (SDRC); appropriate accommodations will be approved by the SDRC, and I will be notified. Failure or refusal to wear the required face coverings in designated areas may result in your immediate removal from the classroom and corrective action,

including referral to the Office of Student Conduct, in accordance with University policies and procedures (UNIV 3.04).

**Hand and Surface Hygiene:** Please use hand sanitizer upon entering the classroom and wipe down your desk/table and chair at the beginning of class. All wipes should be disposed of in the trash can and not left on the desk or floor.

**Make-Up Policy:** Quizzes and exams can be made up **ONLY** in the case of an emergency and **ONLY** if you request a make-up exam or quiz **before** the scheduled time. It is your responsibility to contact me within a reasonable time to request a make-up exam.

**Late Policy:** Late homeworks will be accepted within one week a reduced score of 75%. Submissions beyond that will not be honored. Late submission of any other work without prior authorization from the instructor will not be accepted.

**Cell Phones and Laptops:** Electronic devices will not be needed for in-person lecture. These devices are prohibited, and students are encouraged to take notes physically. If these devices are used outside of emergency situations, they can be subject to confiscation until the end of class. If you require technological assistance for disabilities, arrangements may be made through SDRC.

**Academic Integrity:** I expect you to familiarize yourself with the Honor Code found in the current student handbook. All students will be expected to hold to the Honor Code. Keep in mind that “Any student who violates this Honor Code or who knowingly assists another to violate this Honor Code shall be subject to discipline.” Honor Code: <http://www.sa.sc.edu/creed>.

**Students with Disabilities:** Students who would like to request accommodations for disabilities must register with the Student Disability Resource Center (Close-Hipp 102) before I can make any accommodations. Also, students requesting accommodations must talk with me as soon as possible about their request.

**Student Well-Being** Any student who has difficulty affording groceries or accessing sufficient food to eat every day, or who lacks a safe and stable place to live and believes this may affect their performance in the course, is urged to contact the Division of Student Affairs and Academic Support. If you are comfortable doing so, please notify me as the professor so that we can find resources that may be helpful. Students do not learn when they do not feel safe. If you feel unsafe on campus at any time in any place, please contact Police Dispatch at 803-777-4215 (in an emergency, please call 911) and reach out to the Division of Student Affairs and Academic Support. Again, if you are comfortable doing so, please notify me as the professor, and I will do my best to make appropriate accommodations.

**Privacy:** Note that instructors cannot provide the name, identifying characteristics such as age or gender, or the number of students in their classes who test positive for COVID-19.

# Assignments

**Homework:** Homework is vital to understanding the material in this class. Homework will be posted on our Blackboard page and will typically be assigned each Tuesday and will be due the following Tuesday. This should give students ample time to ask questions. Collaboration on homework is not prohibited, however, if you do work with another individual, you should submit to me the names of individuals you worked with and any and all external sources you used.

**Readings:** Along with actively learning in the classroom and doing homework, reading your textbook is an integral part of learning mathematics. There is an expectation of reading the assigned chapters of your text weekly.

**Quizzes:** Quizzes will be given during the last 15-20 minutes of class every Thursday. **Quizzes must be taken in person** unless the student has an excused absence and has notified me of their absence and the reason prior to the beginning of class.

**Exams:** There will be three exams throughout the semester. The dates for each exam will be announced in class at least one week in advance. Tentative dates for the exams are:

February 9th	(1.1 - 1.9, 2.1 - 2.2)
March 16th	(2.3 - 2.5, 3.1 - 3.4, 4.1 - 4.4)
April 15th	(5.1 - 5.5, 6.1 - 6.3)

Like quizzes, **the exams must be taken in person** unless the student has an excused absence and has notified me of their absence and the reason prior to the beginning of class.

**Final Exam:** The final exam is cumulative and will be taken in person. The date of the final exam is May 4th, 2021. More information will be made available about the final later in the semester.

**Grading:** Your grade in this course will be based on attendance, participation, homework, quizzes, three (3) mid-term exams, and a cumulative final exam. The weights assigned to each of these components will be:

Attendance/Participation	10%
Homework	10%
Quizzes	15%
Exam 1	15%
Exam 2	15%
Exam 3	15%
Cumulative Final	20%

Course grades will be determined according to the following scale:

A	B+	B	C+	C	D+	D	F
100-90%	90-87%	87-80%	80-77%	77-70%	70-67%	67-60%	Below 60%

## Important Dates

Date	Event
January 19, 2021	Last day for students to DROP without a grade of “W” being recorded.
March 27, 2021	Last day for students to DROP without a grade of “WF” being recorded.
May 4, 2021	Cumulative Final Exam

## Additional Student Aid

**Math Tutoring Center:** The Math Tutoring Center (MTC) is a tutoring center staffed by mathematics graduate students which provides group tutoring sessions for MATH 111, 115, 122, 141, 142, and 170. No appointment is necessary. This semester, the MTC will be online through Blackboard Collaborate Ultra and is open Monday through Friday from 10 AM - 3 PM. Current information about the MTC is located [https://www.sc.edu/study/colleges\\_schools/artsandsciences/mathematics/study/tutoring/index.php](https://www.sc.edu/study/colleges_schools/artsandsciences/mathematics/study/tutoring/index.php)

**Student Success Center:** The Student Success Center (SSC) provides a comprehensive array of programs, resources, and services that advance academic goal-setting, skill development, personal transition to and within the university setting and effective decision making. This semester, the SSC is offering a combination of virtual and face-to-face services. The face-to-face services can occur by appointment only in the SSC Main Office in Thomas Cooper Library Monday - Friday from 9:00 AM - 5:00 PM. The virtual services can occur Monday - Thursday from 9:00 AM - 10:00 PM, on Friday from 9:00 AM - 5:00 PM, and on Sundays from 12:00 PM - 10:00 PM.

To make an appointment, you can click **here**. You are allowed to cancel any appointment that is not within 12 hours with no penalty. If you do not show up for an appointment or if you cancel an appointment within 12 hours, you will be charged \$15 to your Self Service Carolina account.

**Disclaimer:** in any event, this syllabus is subject to modification .

Day	Section/Topic	Comments
1/12	Introduction, (1.1) Functions	
1/14	(1.1) Functions, (1.2) Linear Functions	Quiz 1
1/19	(1.3) Rates of Change, (1.4) App. of Functions to Econ	
1/21	(1.5) The Exponential Function, (1.6) The Natural Logarithm	Quiz 2
1/26	(1.6) cont., (1.7) Exponential Growth and Decay	
1/28	(1.8) Function Transformations, (1.9) Power Functions	Quiz 3
2/2	(2.1) Instantaneous Rate of Change	
2/4	(2.2) The Derivative	Quiz 4
2/9	<b>Exam 1</b>	
2/11	(2.3) Interpretations of the Derivative, (2.4) The Second Derivative	
2/16	(2.5) Marginal Cost and Revenue, (3.1) Power Rule	
2/18	(3.2) Derivative of Exponential and Logarithm, (3.4) Product and Quotient Rule	Quiz 5
2/23	3.3) Chain Rule	
2/25	No class	Wellness Holiday
3/2	(4.1) Local Maxima and Minima	
3/4	(4.2) Inflection Points, (4.3) Global Maxima and Minima	Quiz 6
3/9	4.3 (cont.) (4.4) Profit Cost and Revenue	
3/11	Review	Quiz 7
3/16	<b>Exam 2</b>	
3/18	(5.1) Distance and Accumulated Change	
3/23	(5.2), (5.3) Definite Integral & Area	
3/25	(5.4) Interpretations of the Definite Integral	Quiz 8
3/30	No class	Wellness Holiday
4/1	(5.5) Fundamental Theorem of Calculus	Quiz 9
4/6	(6.1) Antiderivatives, (6.2) Antiderivatives & the Definite Integral	
4/8	(6.3) Using the FTC	Quiz 10
4/13	Review	
4/15	<b>Exam 3</b>	
4/20	(6.6) Integration by Substitution	
4/22	(5.6) Average Value, (6.4) Consumer and Producer Surplus	