

Calculus I
Math 125 – Section 39456 – Fall 2016
University of Southern California

Lecture time and location: MWF 9:00 – 9:50pm, SOS B44

TA Discussion Sections (register for one):

T/Th 8:00 – 8:50pm, KAP 166, with Hyun-Jung Kim

T/Th 9:00 – 9:50pm, KAP 166, with Hyun-Jung Kim

Professor: Frank Lucas “Luke” Wolcott

Email: luke.wolcott@usc.edu or fwolcott@usc.edu

Office: KAP 424F

Office hours: Wednesdays 10am – 12pm and 2pm – 3pm

Course website:

Find it on Blackboard! All homework assignments and important announcements will be communicated here. Includes a detailed course calendar.

Text: *Essential Calculus*, by James Stewart. ISBN: 9781133112297

Course objectives:

This course will introduce you to derivatives and integrals, and prepare you for the other courses in the Calculus sequence. The content is amazingly useful in all sorts of areas – e.g. physics, chemistry, biology, economics. But it’s also a great opportunity to practice critical thinking skills and careful logical reasoning. This book is nice because it goes into just enough theory to provide context, but also exposes many applications. We’ll cover most of Chapters 1–5.

Homework:

Homework will be assigned weekly and *due by 9:00am each Friday* – you can hand it in before class. Your job is not just to answer the questions, but write up your solutions in a way that explains the answer. As in all math classes, you must show your work and write out clear and concise solutions to all assigned problems. No credit will be given to unjustified answers, and you will lose points if your homework is messy, out of order, or not stapled. *I encourage you to work together on the homework, but everyone is responsible to write up his or her own solutions.* If you’re struggling to find a partner to work with, email me and I’ll try to help out.

If I suspect that you’ve copied someone else’s solutions, I’ll flag your paper and ask you to explain your work to me. If you can’t, you’ll lose half your grade for that homework. If I have two flagged homeworks that haven’t been collected, I’ll send you an email and ask to meet with you; serious incidents will be reported.

The homework will be graded as follows (probably): four random problems will be graded carefully, out of four points each, for a total of 16 points. Then four points will be given holistically for completion, for a total of 20 possible points. The lowest two homework scores will be dropped.

TA Discussion Sections and Quizzes:

You must be enrolled for one of the two TA discussion sessions associated with this class. These meet T/Th for an hour, and are run by our TA, Hyun-Jung Kim. These smaller sessions are your chance to get more comfortable with the material, ask lots of questions, work through problems, and do group work or partner work. Except for the first week, **on Tuesdays you will have a quiz during the TA section.** The lowest two quiz scores will be dropped.

The TA also has office hours each week, in the Math Center on the second floor of Kaprielian Hall. These hours haven't been scheduled yet.

Exams:

There will be two midterm exams, in Week #5 and Week #10 probably, and a final exam. The final is common with all the Math 125 sections and is **on Wednesday, December 7 from 2 – 4pm.** Because it is a common final it counts as an exception in the USC listing of final exams; it might not fall on the day you think it falls on. It falls on **December 7.**

On quizzes and exams you will be allowed to use a simple scientific calculator only (e.g. the TI-30X). No graphing calculators, no phones. If you don't have one of these, they only cost about \$8.

Computer Lab component:

In this course you'll become familiar with the popular mathematical software Mathematica. Some of your TA sessions will be spent in the computer lab attached to the Math Center, on the second floor of Kaprielian. You will be responsible for several Mathematica assignments, which will count towards 5% of your grade.

Grading: Your final grade will be calculated as follows.

<u>Category</u>	<u>% of grade</u>
Homework (due Fridays)	20
Quizzes (on Tuesdays)	15
Computer Assignments	5
Midterm I	15
Midterm II	15
<u>Final Exam</u>	<u>30</u>
Total	100

Make-ups:

Late homework assignments will not be accepted for any reason, and you cannot make up a quiz. In case of observance of religious holidays or participation in university sponsored activities, arrangements must be made at least three weeks in advance for exams. You will be required to provide documentation for your absence, and only in this case might a make-up exam be given. If you miss an exam due to unavoidable and well-documented circumstances, your final exam will be weighted more heavily.

Tips for succeeding in this class:

- **Read the book and do the homework.** The only way to understand mathematical ideas deeply is to work out solutions to problems. Learning is an active process, and in this course you cannot succeed without doing the homework and class activities. My role as instructor is to explicate and clarify the concepts, but I can't make you learn if you don't put in the effort. You should plan to spend two hours working outside of class for every hour in class.
- **Attend TA section.** This is a great opportunity to ask all your questions, and to listen to your classmates' questions. Students often report that it was during TA sections that they really started to understand the material.
- **Ask for help.** No matter how much math you understand, there will always be people who understand more, and people who understand less. Asking questions is how we personalize this somewhat impersonal material, and make it mean something. So no question is a bad question. If there's something that isn't clear to you, I guarantee that you're not the only one. Ask your questions, and everyone will be grateful.
- **Study for exams.** Exams count for a large portion of your grade; the reason for this is that I want to force you to study. When you study for an exam you are relearning and reorganizing the material in a more useful form. It forces you to step back and try to see the larger picture. Without this integration of knowledge you will be lost in the forest, and will miss the underlying simplicity and beauty of these concepts.

Resources:

- **The course website!**
- **WileyPLUS** is full of helpful goodies. Worth exploring.
- The **Math Center**, on the second floor of Kaprielian Hall, is open throughout the week and staffed by graduate students. Your TA will hold office hours there, but you're welcome to pop in at other times. There is a roaming TA/tutor that can help you. Many students find it helpful to work through problems there.
- My **office hours** are dedicated to helping you – whether you just need a hint, need a back-to-basics explanation, or have a random question I might know the answer to. You can always email me or your TA a question too. I will try to respond within a few hours.
- Engineering students have access to **personal tutors** through VARC.

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 Section

11, Behavior Violating University Standards:

(<https://scampus.usc.edu/1100-behavior-violating-university-standards-and-appropriate-sanctions>).

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>).

Discrimination, sexual assault, and harassment are not tolerated by the university. You are encouraged to report any incidents to the Office of Equity and Diversity (<http://equity.usc.edu>) or to the Department of Public Safety (<http://adminopsnet.usc.edu/department/department-public-safety>). This is important for the safety of the whole USC community. Another member of the university community – such as a friend, classmate, advisor, or faculty member – can help initiate the report, or can initiate the report on behalf of another person. The Center for Women and Men (<http://www.usc.edu/student-affairs/cwm/>) provides 24/7 confidential support, and the sexual assault resource center webpage (<http://sarc.usc.edu>) describes reporting options and other resources.

Use of electronic devices – cell phones, laptops, etc – in class is a privilege not a right, and is distracting to everyone. Please be considerate of the instructor and your classmates when deciding how you want to spend your class time.

Support Systems:

Students whose primary language is not English should check with the American Language Institute (<http://dornsife.usc.edu/ali>), which sponsors courses and workshops.

The Office of Disability Services and Programs provides certification for students with disabilities and helps arrange the relevant accommodations: (http://sait.usc.edu/academicssupport/centerprograms/dsp/home_index.html)

If an officially declared emergency makes travel to campus infeasible, USC Emergency Information (<http://emergency.usc.edu>) will provide safety and other updates, including ways in which instruction will be continued by means of Blackboard, teleconferencing, and other technology.

This syllabus is subject to change. Check the course website for the current version.