Math 126G, Calculus II, Fall 2019, Section 39519

Exterior Course Website: http://www.stevenheilman.org/∼heilman/126f19.html
Prerequisite: Math 125.
Course Content: A continuation of MATH 125: trigonometric functions; applications of integration; techniques of integration; indeterminate forms; infinite series; Taylor series; polar coordinates.

This Document: Reading this syllabus counts as one homework grade. In order to receive credit for reading the syllabus, you must read the syllabus by August 30, 5PM PST Make sure to read to the end.

Lecture Meeting Time/Location: Mondays, Wednesdays, and Fridays, 1PM-150PM, SOS B4
Instructor: Steven Heilman, stevenmheilman@gmail.com
Office Hours: Mondays, 9AM-10AM, 11AM-12PM, KAP 406G
TA: Wenqian Wu, wenqian@usc.edu
TA Office Hours: Occur in the Math Center.
Discussion Session Meeting Time/Location:

- 39520, Tuesdays and Thursdays, 2PM-250PM, KAP 167

- 39521, Tuesdays and Thursdays, 3PM-350PM, KAP 167

You are not required to buy a textbook. Free lecture notes are provided on the course website.
Recommended Textbook: Stewart, <u>Essential Calculus</u>, any edition.
First Midterm: Friday, September 27, 1PM-150PM, SOS B4
Second Midterm: Monday, November 4, 1PM-150PM, SOS B4
Final Exam: Wednesday, December 11, 2PM-4PM, Location TBD. (This final is for all 126 students)
Math Center: The Math Center is located in 263 KAP and is open Monday-Friday from 8am to 7pm on most days. It is primarily run by math graduate students here at USC.
Other Resources: Applets by GeoGebra,

Email Policy:

- My email address for this course is stevenmheilman@gmail.com.

- It is your responsibility to make sure you are receiving emails from stevenmheilman@gmail.com, and they are not being sent to your spam folder.

- Do NOT email me with questions that can be answered from this document.

- Homework questions sent to me by email will be answered altogether in the form of a "digest." I will get to every question, but I cannot reply to every email. This digest will be sent out typically two days before the homework is due. So, one digest will answer online homework questions on Sunday, and another digest will answer quiz questions around Tuesday.

Exam Procedures: Students must bring their USCID 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. Exams can be regraded at most 15 days after the date of the exam. This policy extends to homeworks as well. All students are expected to be familiar with the USC Student Conduct Code. (See also here.)

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://capsnet.usc.edu/department/department-public-safety/online-forms/contact-us. This is important for the safety 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 sarc@usc.edu describes reporting options and other resources.

Disability Services: If you are registered with disability services, I would be happy to discuss this at the beginning of the course. Any student requesting 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 301 STU and is open 8:30am-5:00pm, Monday through Friday.
https://dsp.usc.edu
213-740-0776 (phone)
213-740-6948 (TDD only)
213-740-8216 (fax)
ability@usc.edu

Exam Resources: Here is a page containing old calculus exams. Here is a page containing old 126 exams. Here is a page containing old final exams for Math 126 at USC.

Occasionally these exams will cover slightly different material than this class, or the material will be in a slightly different order, but generally, the concepts should be close. (Even the old Math 118 exams have different material than the current 118 class.)

Homework Policy:

- Homeworks are due in discussion session Thursdays, at the **beginning** of class.

- Late homework is **not accepted**.

- If you still want to turn in your homework late, then the number of minutes late divided by ten will be deducted from the homework score. The exact deduction and rounding procedure is not guaranteed to be accurate.

- The **lowest two** homework grades will be dropped. This policy is meant to account for illnesses, emergencies, etc.

- You may not use the internet to try to find answers to homework problems.

- Do not submit homework via email.

- Collaboration on the homework is allowed and encouraged.

- All homework assignments must be **written by you**, i.e. you cannot copy someone else's solution verbatim. I would encourage you to understand carefully how the homework solutions work, and how you would find such a solution on your own. Overusing collaborations or search technology should result in poor performance on the exams.

- Quiz solutions will be posted each Saturday, after the quizzes occur.

- Reading this syllabus counts as one homework grade. In order to receive credit for reading the syllabus, you must read the syllabus by August 30, 5PM PST.

Quiz Policy:

- On any day when homework is due, there will also be a quiz on that same day, covering the material from the homework. Questions on the quiz will usually be similar to questions on the homework.

- The **lowest two** quiz grades will be dropped. This policy is meant to account for illnesses, emergencies, etc.

- Quizzes will be administered in your discussion section on Thursdays. Each quiz should last about 15 minutes.

- No notes, no books, no calculators, etc. will be allowed during the quizzes.

Grading Policy:

- The final grade is given by the larger of the following two schemes.

  - Scheme 1: class participation (3%), homework (11%), quizzes (11%), the first midterm (20%), the second midterm (20%), and the final (35%).
  - Scheme 2: class participation (3%), homework (11%), quizzes (11%), the largest midterm grade (30%), and the final (45%).

  The grade for the semester will be curved. However, I will not "curve down" since anyone who exceeds my expectations in the class by showing A-level performance on all exams and homeworks will receive an A for the class.

- If you cannot attend one of the exams, you must notify me within the first two weeks of the start of the semester. Later requests for rescheduling will most likely be denied.

- Class participation is not the same as attendance. I will never explicitly take attendance, but I will notice if someone is frequently absent. Things that increase your class participation grade include: asking good questions, paying attention in class, showing up on time or early to class, etc. Things that decrease your class participation grade include: excessive talking or disruptions during class, frequent absences, excessive texting/smartphone usage in class, frequent tardiness, etc.

- You must attend the final exam to pass the course.

- Since this class has a coordinated final, you cannot take the final at any time other than its schedule time. If you are passing the class at the time of the final, and if you are unable to attend the final, you will be assigned an Incomplete grade and then take the final of 126 in the next semester. If you are not passing the class at the time of the final, you cannot receive an Incomplete grade.

- Since this class has a coordinated final, the curve for your final course grade will take into account your performance compared to all students in all sections of the 118 course this semester.

Tentative Schedule: (This schedule may change slightly during the course.)

Week	Monday	Tuesday	Wednesday	Thursday	Friday
1	Aug 26: 5.1, Inverses	Aug 27	Aug 28: 5.6, Inverse trigonometric functions	Aug 29: Homework 1 due	Aug 30: Read the syllabus due. 5.6, Inverse trigonometric functions
2	Sep 2: No class	Sep 3	Sep 4: 5.7, Hyperbolic functions	Sep 5: Homework 2 due	Sep 6: 5.8, L'Hôpital's Rule
3	Sep 9: 6.1, Integration by Parts	Sep 10	Sep 11: 6.2, Trigonometric substitution	Sep 12: Homework 3 due	Sep 13: 6.3, Partial Fractions
4	Sep 16: 6.5, Approximate Integration	Sep 17	Sep 18: 6.5, Approximate Integration	Sep 19: Homework 4 due	Sep 20: 6.6, Improper integrals
5	Sep 23: 7.1: Areas between curves	Sep 24	Sep 25: 7.2: Volumes	Sep 26: No homework due	Sep 27: Exam 1
6	Sep 30: 7.2: Volumes	Oct 1	Oct 2: 7.3: Volumes by Cylindrical Shells	Oct 3: Homework 5 due	Oct 4: 7.4: Arc Length
7	Oct 7: 7.5: Areas by Revolution	Oct 8	Oct 9: 7.6: Applications	Oct 10: Homework 6 due	Oct 11: 8.1: Sequences
8	Oct 14: 8.2: Series	Oct 15	Oct 16: 8.2, Series	Oct 17: No class	Oct 18: No class
9	Oct 21: 8.3, Integral and comparison tests	Oct 22	Oct 23: 8.4, Convergence tests	Oct 24: Homework 7 due	Oct 25: 8.4, Convergence tests
10	Oct 28: 8.5, Power series	Oct 29	Oct 30: 8.5, Power series	Oct 31: Homework 8 due	Nov 1: 8.6, Power series
11	Nov 4: Exam 2	Nov 5	Nov 6: 8.7, Taylor and Maclaurin series	Nov 7: No homework due	Nov 8: 8.8, Applications
12	Nov 11: 9.1, 9.1, Parametric curves	Nov 12	Nov 13: Parametric curves	Nov 14: Homework 9 due	Nov 15: 9.2, Calculus on curves
13	Nov 18: 9.3, Polar coordinates	Nov 19	Nov 20: 9.3, Polar coordinates	Nov 21: Homework 10 due	Nov 22: 9.4, Areas and lengths in polar coordinates
14	Nov 25: 9.5, Conic sections in polar coordinates	Nov 26	Nov 27: No class	Nov 28: No class	Nov 29: No class
15	Dec 2: Leeway	Dec 3	Dec 4: Review of course	Dec 5: Homework 11 due	Dec 6: Review of course

Advice on succeeding in a math class:

- Review the relevant course material **before** you come to lecture. Consider reviewing course material a week or two before the semester starts.

- When reading mathematics, use a pencil and paper to sketch the calculations that are performed by the author.

- Come to class with questions, so you can get more out of the lecture. Also, finish your homework at least **two days** before it is due, to alleviate deadline stress.

- Write a rough draft and a separate final draft for your homework. This procedure will help you catch mistakes.

- If you are having difficulty with the material or a particular homework problem, review Polya's Problem Solving Strategies, and come to office hours.

Compliance

Ten percent of your homework grade is reading and complying with this document. To acknowledge that you have read and agree to the above, click here, and follow the instructions. (This link may not work on some smartphones, so make sure to use a computer instead.) To receive credit, this form must be submitted by 5PM PST, August 30, 2019.