Course Syllabus
Math 126: Calculus II
Section 39516, Fall 2023

Basic Information

Lectures: MWF 12:00 – 12:50pm, DMC152
Instructor: Wenyuan Li
Course Webpage: https://blackboard.usc.edu/webapps/login/
Email: wenyuan.li@usc.edu
Office Location: KAP 424A
Office Hours: MWF 10:30am–11:30am or by appointment

Course Description: (4 units) trigonometric functions; applications of integration; techniques of integration; indeterminate forms; infinite series; Taylor series.
Prerequisites: Math 125.
Text: Essential Calculus (2nd Ed.) by James Stewart. ISBN-13: 978-1-133-11229-7.

Discussions: TTh, see your class schedule for the specific room and time.
Teaching Assistant: Benjamin Gillen
Email: bgillen@usc.edu
Office Location: Math Center, KAP 263
Office Hours: Math Center Schedule

Math Center: The Math Center is open from 8am to 7pm Monday-Thursday, and 8am to 5pm on Friday. It is primarily run by math graduate students here at USC. The office hours of your TA will also be held in the Math Center, although you can go to the Math Center at any time it is open to ask for help.

Course Logistics

Throughout the semester our course will make use of the following online systems:

- Blackboard for all communication, links, and course materials.
- Gradescope for homework, quizzes and exams.

It is possible that due to some reason an individual class lecture may be held remotely via Zoom. If this is the case, I will notify you in advance via Blackboard.

Assignments

Homework:

Each week a number of homework problems will be assigned on Wednesday. The problems are due on the next Wednesday before the lecture and should be submitted through Gradescope. The problems can be viewed on Blackboard.

Homework received within the first week after the due will receive a 90% credit, and homework received in the second week after the due will only receive a 70% credit (both mean before the Wednesday lecture of that week). No later homework will be accepted. You can drop one homework at the end of the semester.

Quizzes:

There will be quizzes every two weeks on the Thursday discussions that take about 20 minutes. For make-up quizzes, you should contact the Teaching Assistant. The lowest quiz score is dropped.

EXAMS AND GRADING

Exams: All exams will be held in person during the scheduled times. If you cannot be present, you must contact me BEFORE the exam date to make other arrangements. If you no-show for an exam and attempt to contact me afterward, do not expect to be allowed a make-up exam.

There are three exams in this course: two midterms and a final. The midterms will be held during normally scheduled class times. The final exam is cumulative and written by the Math Department. It is university policy that no student may take the final exam early, or be allowed to skip it.

- Exam 1: Friday October 6
- Exam 2: Friday November 3
- Final Exam: Wednesday, December 6 2023, 2 – 4 pm.

Grading and Curves: Department guidelines for this course state that approximately half the letter grades should be A's and B's. So the overall class median grade will be roughly the division between B's and C's.

Your grade in the course is calculated as follows:

- Homework: 15%
- Quizzes: 10%
- Midterms: 40%
- Final Exam: 35%

How to calculate your current grade: The grading scale for the course will be:

- $[92 - 100] = $ A
- $[90 - 92) = $ A-
- $[88 - 90) = $ B+
- $[82 - 88) = $ B
- $[80 - 82) = $ B-
- $[78 - 80) = $ C+
- $[72 - 78) = $ C
- $[70 - 72) = $ C-

Using this scale and the weighting of the components given above, you can calculate your current grade at any time in the course. Midterm scores will be curved, but there is no curve on HW or quizzes.

For instance, if you want to know your grade before the final exam and you have a 95% on your homework, 92% on your quizzes, your curved Midterm 1 score is 89%, and your curved Midterm 2 score is 81%, then your score before the final is: $((93(.10) + 92(.10) + 89(.225) + 81(.225))/.65 = 87.3$, which is a B.

OTHER POLICIES

Academic Integrity: The University of Southern California is a learning community committed to developing successful scholars and researchers dedicated to the pursuit of knowledge and the dissemination of ideas. Academic misconduct, which includes any act of dishonesty in the production or submission of academic work, compromises the integrity of the person who commits the act and can impugn the perceived integrity of the entire university community. It stands in opposition to the university's mission to research, educate, and contribute productively to our community and the world.

All students are expected to submit assignments that represent their own original work, and that have been prepared specifically for the course or section for which they have been submitted. You may not submit work written by others or "recycle" work prepared for other courses without obtaining written permission from the instructor(s).

Other violations of academic integrity include, but are not limited to, cheating, plagiarism, fabrication (e.g., falsifying data), collusion, knowingly assisting others in acts of academic dishonesty, and any act that gains or is intended to gain an unfair academic advantage.

The impact of academic dishonesty is far-reaching and is considered a serious offense against the university. All incidences of academic misconduct will be reported to the Office of Academic Integrity and could result in outcomes such as failure on the assignment, failure in the course, suspension, or even expulsion from the university.

For more information about academic integrity see the student handbook or the Office of Academic Integrity's website, and university policies on Research and Scholarship Misconduct.

Please ask your instructor if you are unsure what constitutes unauthorized assistance on an exam or assignment, or what information requires citation and/or attribution.

Disability Services: USC welcomes students with disabilities into all of the University's educational programs. The Office of Student Accessibility Services (OSAS) is responsible for the determination of appropriate accommodations for students who encounter disability-related barriers. Once a student has completed the OSAS process (registration, initial appointment, and submitted documentation) and accommodations are determined to be reasonable and appropriate, a Letter of Accommodation (LOA) will be available to generate for each course. The LOA must be given to each course instructor by the student and followed up with a discussion. This should be done as early in the semester as possible as accommodations are not retroactive. More information can be found at osas.usc.edu. You may contact OSAS at

(213) 740-0776 or via email at osasfrontdesk@usc.edu.

Course Calendar (tentative)

Week 01: Introduction, Inverse Trig Functions and Hyperbolic Functions, Sections 5.6 – 5.7.

Week 02: L'Hospital's Rule, Integration by Parts, Sections 5.8, 6.1.

Week 03: Trig Integrals and Substitutions, Partial Fractions, Sections 6.2 – 6.3. Monday Labor Day. **Sep 8 is the last day to add classes, or to drop without a "W".**

Week 04: Approximate Integration, Improper Integrals, Sections 6.5, 6.6.

Week 05: Area Between Curves, Volumes, Sections 7.1 – 7.2.

Week 06: Volumes between Cylindrical Shells, Review, Section 7.3.

Week 07: Arclength, Area of a Surface of Revolution, Sections 7.4 – 7.5. **Exam 1 on Friday Oct 6.**

Week 08: Applications to Engineering, Sequences, Sections 7.6, 8.1. **Thursday and Friday Fall Recess.**

Week 09: Series, The Intergral and Comparison Tests, Sections 8.2 – 8.3.

Week 10: Other Convergence Tests, Power Series, Sections 8.4 – 8.5.

Week 11: Representing Functions as Power Series, Review, Section 8.6. **Exam 2 on Friday Nov 3.**

Week 12: Taylor and Maclaurin Series, Applications of Taylor Polynomials, Sections 8.7 – 8.8. **Friday Veterans Day. Nov 10 is the last day to drop with a "W".**

Week 13: Parametric Curves, Polar Coordinates, Sections 9.1, 9.3.

Week 14: Polar Coordinates, Section 9.4. **Wednesday to Friday Thanksgiving Break.**

Week 15: Review

Finals Week: Final Exam Wednesday, December 6 2023, 2 – 4 pm