Syllabus of H1B Honors Calculus

Related Information

Instructor: You Qi
Time: Every Mon. Wed. Fri. 2–3pm — Venue: 87 Evans.
Office: Room 849, Evans — E-mail: yq2121@berkeley.edu
Office Hour: Mon. Wed. Fri. 10:30-11:30am
GSI: Doosung Park — E-mail: doosung@berkeley.edu
Discussion: Every Mon. Wed. Fri. 1–2pm — Venue: 85 Evans.
Office: 814 Evans — Office Hour: Tue 1:30–3:30pm
Course webpage: `http://math.berkeley.edu/~yq2121/fall2013h1b.html`

Textbook

Single Variable Calculus by James Stewart, 7th edition, Early Transcendentals for UC Berkeley, Cengage Learning.

Schedule

Our basic goal is to cover chapters 7, 8, 9, 11, 17 of the text book, if time permits. After each chapter we will have a 20-minute quiz (in class) that tests the basic concepts we introduced in the chapter. The quizzes will be mostly true or false, multiple choices, and simple computations which do not require explanations. There will also be a mid-term and a final which will be much longer than quizzes, and which requires detailed explanation of your answers. The following is a tentative plan of the material we will cover in the course.

1. Chapter 7 Techniques of Integration: Sections 7.1-7.5, 7.8.
2. Chapter 8 Further applications of integration: Sections 8.1-8.4.
3. Chapter 9 Differential equations: Sections 9.1-9.3, 9.5.
4. **Mid-term, Oct. 9**
5. Chapter 11 Infinite sequences and series: Sections 11.1-11.4,11.6,11.8-11.10.
6. Chapter 17 Second-order differential equations: Sections 17.1-17.4.
7. Review session TBA.
8. **Final December 19.**

Advice

You are required to attend all the lectures, since our lectures might differ slightly from the text book, and the schedule might change in occasion. As a general principle for taking math courses, *take twice the amount of time of lectures to review what you learnt in class, and do a lot of exercises!* What we hope to achieve is not only the knowledge but also the ability to think logically and independently. Feel free to let me know if some points are unclear to you and ask for more explanations. Any suggestions about the teaching will be warmly welcomed.

In case you can't make the exams due to medical conditions, please contact the instructor as soon as possible and a doctor's note and your dean's approval is needed. I will schedule a make up exam for you in my office, which will use slightly different problems from the normal exam.

Assignments

Homeworks will be assigned in class after each lecture. You should hand them in every Wednesday before the class. *No late homework will be accepted.* Your GSI will look at them and keep a record whether you handed in or not, but will not grade them in detail. Quizzes and exams will be similar to the examples we do in class and closely related to homeworks. Hence you are strongly encouraged to work them through and understand them well by yourself. As another general principle in math, *practice makes perfect.*

Grading

- Homework, 5 %
- Quizzes, 25 %
- Mid-term, 30 %
- Final, 40 %