

MATH 31: FALL 2015 CALCULUS II

Lectures:

Section 7: Mondays, Tuesdays, Thursdays, and Fridays, 8-8:50am
Room 218, Brighton Hall

Instructor:

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Tentative Office Hours:
MTWRF 9-9:50am. Also by appointment.

Required Text: **Required Text:** The free textbook *APEX Calculus*, found at:
<http://www.apexcalculus.com>

Topics Covered: Chapters 5–8. If you want to buy a paper copy, these chapters may be purchased as “Volume 2” of *APEX Calculus* on amazon.com or at the Sac State bookstore. The bookstore has Edition 2.0, but you might prefer to buy the new Edition 3.0 online. I believe they are the same, only with small corrections made in Edition 3.0.

It would also be helpful to have another calculus book (like Stewart’s *Calculus*) as another source of practice problems. You can find old editions for cheap.

Prerequisite: Pass Math 30 (or its equivalent, for example, having the appropriate AP credit)

Learning Outcomes: Math 31 is an Area B-4 (Mathematical Concepts and Quantitative Reasoning) General Education course and thus has a writing requirement.

- Students will be able to solve problems by thinking logically, making conjectures, and constructing valid mathematical arguments.
- Students will be able to make valid inferences from numerical, graphical and symbolic information.
- Students will be able to apply mathematical reasoning to both abstract and applied problems, and to both scientific and non-scientific problems.

Grading Policy:

- 25% Homework, Quizzes, and Worksheets
- 15% Hour Exam 1
- 15% Hour Exam 2
- 15% Hour Exam 3
- 15% Essay
- 30% Cumulative Final Exam

This adds up to 115%. Your lowest hour exam score will be dropped and replaced by your essay score (even if your essay score is lower than that midterm score).

Homework and Reading Assignments:

Homework: Details to come.

You are expected to read the relevant sections of the book, as listed on the class webpage.

You may do “preliminary work” with others (for example, you may give each other hints), but you are expected to write the detailed solutions on your own. If you get help from some source (including, but not limited to, a person or a website), you must clearly cite that source in your homework. Please do not share complete written solutions.

The Essay:

I would like to learn your reasons for taking this calculus class: purely for interest? in pursuit of a particular career? An important part of this class will be an essay, written in $\text{\LaTeX}$, in which you describe how calculus arises in your field of interest. I would like you to describe your field of interest, broadly describe how it uses calculus, and also give a concrete “word problem.” You will have considerable freedom in choosing your topic and writing your essay, but there will be some opportunities for me to give you feedback along the way:

- Date 1: Demonstrate an ability to use $\text{\LaTeX}$.
- Date 2: Write a brief description of your topic, using $\text{\LaTeX}$, and explain it to me in person, in office hours or by appointment.
- Date 3: First Final Draft is Due.
- Date 4: Final Final Draft is Due.

The first three parts will be graded “Pass/Fail,” and the Final Final Draft will be graded numerically.

Exams:

- Exam One: Monday, September 21
- Exam Two: Thursday, October 15
- Exam Three: Thursday, November 12
- Final Exam:
Section 7: Monday, December 14, 8-10am.

Exam Protocol:

- You will need pencils/pens and erasers, nothing more. Keep all devices capable of communication turned off and out of sight. Calculators are not permitted.
- Solutions to each exam will be posted promptly after the administration of the exam. You are encouraged to look at the solutions while the exam is still fresh in your mind.
- The final exam will be cumulative, but extra emphasis will be given to material covered after the third exam.
- Do not make arrangements to leave campus prior to the final exam.

Resources:

- the Math Lab in Room 118, Brighton Hall
- the PAL Program (Peer-Assisted Learning)

Drop Policy: Please see <http://www.csus.edu/math/policies/DropF15.pdf>

Accommodations:

If you have specific physical, psychiatric, or learning disabilities and require accommodations, please let me know early in the semester so that your learning needs may be appropriately met.

Absences:

You are held responsible for all work missed during absences. Late homework and make-up exams will only be allowed under rare circumstances, and, moreover, only with my explicit written consent.