Syllabus Summer 2014 - Math 19B

Course Learning Objectives

1. To understand the concept of the area under a graph.

2. To understand how areas can be calculated using the concept of the antiderivative of a function.

3. To understand the definite and indefinite integral concept.

4. To learn how to find the anti derivatives of elementary algebraic and trigonometric functions.

5. To understand how to apply the integral to finding volumes using Cavalieri's Principle.

6. To understand how to find volumes using the method of cylindrical shells.

7. To understand the application of the integral concept to the concepts of work and energy in physics.

8. To apply the integral to determine lengths of arcs and surface area.

9. To understand Taylor polynomials and the Taylor remainder formula. 10. To understand infinite series, power series and Taylor series.

General Information

Time:	That's up to YOU
Location:	Wherever you have Internet!
Course Authors:	Tony Tromba, Frank Bäuerle
Course Hosts:	UCSC, UC Online
Course Designer:	Katrina Fullman
Instructor:	Frank Bäuerle
Teaching Assistants (TAs):	Yusuf Gören, Rob Carman
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Office Hours (OH)

Click here for dates, times and locations (https://cole2.uconline.edu/courses/270853/wiki/office-hours)

. The instructor and TAs hold weekly office hours both in-person and online via Adobe Connect, our webinar software. A range of times are available.

Discussion Sections/T.A.'s

Click here for dates, times and locations (https://cole2.uconline.edu/courses/270853/pages/optional-sections-and-tutoring) . Your TAs (teaching assistants) will help facilitate the on-line discussion groups and also hold on-line office hours. There are optional discussion sections at various times in McHenry 4130 that really are like drop-in hours. You do not need to enroll in them to attend.

Tutoring

For students present in Santa Cruz, there will be in-person tutoring available. During the summer session, students must sign up for tutoring through **OTSS   (https://eop.sa.ucsc.edu/OTSS/tutorsignup/)** , and by doing so they commit to a spot for the whole quarter, which they are expected to attend. Other tutoring options can be found **here (https://cole2.uconline.edu/courses/270853/pages/optional-sections-and-tutoring)** .

e-Textbook and Homework Systems (Launchpad and CalcPortal)

The textbook (a customized version of *Calculus, Early Transcendentals, 2nd ed*, by UCLA Professor Jon Rogawski) is located on a web-based platform called CalcPortal, and the homework assignments are located on a web-based platform called Launchpad. We are offering free access to both platforms this term. **For details on how to access Launchpad and CalcPortal, go to the Quick Start Guide (https://cole2.uconline.edu/courses/270853/wiki/quick-start-guide-spring-14#Launchpad)** .

Grading Policy

The grade in this class is comprised of:

On-line Homework (in CalcPortal)	15%
On-line Quizzes (in LaunchPad)	10%
Reading Assignments - Progress Check Questions (in LaunchPad)	5%
Proctored Midterm (in person or online)	30%
Comprehensive Final (in person or online)	40%

Some detailed explanation for the grading is in order:

- **Homework:** All homework assignments are on Launchpad and are due on the dates noted below in the weekly schedule. You have an unlimited number of attempts on all homework questions and most questions provide feedback or hints if you answer incorrectly.

- **On-Line Quizzes:** On-line quizzes are announced periodically through Canvas announcements and email. On-line quizzes are found in Launchpad. Unlike regular on-line homework assignments, they are limited in time and do not give hints or feedback for incorrect answers. There will be partial credit (where appropriate) on on-line quizzes. Your TA and instructors will check your answers and may assign partial credit after the computer score has been calculated. That is, your final score on a quiz or other on-line test may be higher than what you see after you submit your test to Launchpad.
- **Reading Assignments:** No, we are not watching you when you read, so your reading score is determined by your performance on the progress check questions in the sections in LaunchPad. You will encounter them regularly when you read the assigned sections in your E-book. All readings are due on the dates noted below in the weekly schedule.
- **Discussion on Piazza and Study Group Participation:** This is a tricky one. Research shows that student success in on-line learning increases with active participation in discussion groups. On the other hand, we understand that not everybody needs help nor may want to collaborate with others. Now if you don't need help, you can still help others, and the fact is that explaining math to others helps you understand the math more deeply, so it is to your benefit also. ***Active participation on Piazza is strongly encouraged and can contribute to a grade bump for the final grade.***

Tentative Weekly Schedule

Week	Dates	Sections to be covered	Assignments Due
1 (https://cole2.uconline.edu /courses/270853/modules /694961)	7/28 - 8/3	Sections 5.1, and 5.2, 5.3, 5.4, and 5.6	• Wk 1 Homework and Reading due **Sun** @ 11:55pm
2 (https://cole2.uconline.edu /courses/270853/modules /694962)	8/4 - 8/10	Sections 6.1, 6.2, 6.3, 6.4, 6.5, and 7.1	• Quiz 1 (online - go to **CalcPortal (https://cole2.uconline.edu /courses/270853/pages /calcportal-homework)**) due Fri @ 11:55pm • Wk 2 Homework and Reading due **Sun** @ 11:55pm
3 (https://cole2.uconline.edu /courses/270853/modules /694963)	8/11 - 8/17	Sections 7.2, 7.3, 7.5, 7.6, and 8.1, and Midterm Review	• Wk 3 Homework and Reading due **Sun** @ 11:55pm • Midterm **(click here for dates, times and details) (https://cole2.uconline.edu /courses/270853/pages/exam- information)**

4 **(https://cole2.uconline.edu /courses/270853/modules /694964)**	8/18 - 8/24	Sections 8.4, 10.1, 10.2, and 10.3	• Wk 4 Homework and Reading due **Sun** @ 11:55pm • Quiz 2 (online - go to **CalcPortal (https://cole2.uconline.edu /courses/270853/pages /calcportal-homework)**) due Fri @ 11:55pm
5 **(https://cole2.uconline.edu /courses/270853/modules /694965)**	8/25 - 8/29	Sections 10.4, 10.5, 10.6, 10.7, and Final Exam Review	• Wk 5 Homework and Reading due **Fri** @ 11:55pm • Final **(click here for dates, times, and details) (https://cole2.uconline.edu /courses/270853/pages/exam-information)**

Midterm and Final Exams

Please go to our **Exam Information Page (https://cole2.uconline.edu/courses/270853/wiki/exam-information)** for details on Midterm and Final dates, times, locations and requirements. Exams will be offered on-campus for UC Santa Cruz students and online for Cross-Campus and UC Online students.