(UCSC) math 19B_Calculus for Science, Engineering, and Mathematics Sum Ses1_20116

Syllabus Math 19B Calculus 2, Summer Session 1, 2016

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:	Laura Rosenzweig
Instructor:	Tony Tromba & Frank Bäuerle
Teaching	

Assistants (TAs):	Gabriel Rhodes, Steven Flynn
Office:	Tony: McH 4151, Frank: McH 4163
Phone:	Tony: (831) 459-2794, Frank: (831) 459-2964
E-mail:	Tony: **tromba@ucsc.edu**, Frank: **bauerle@ucsc.edu**, Gabriel: grhodes@ucsc.edu, Steven: spflynn@ucsc.edu

Office Hours (OH)

Click here for dates, times and locations. The instructor and TAs hold weekly office hours both in-person and online via Zoom, our webinar software. A range of times are available.

E-Textbook and Homework Systems (Launchpad)

The textbook (a customized version of *Calculus, Early Transcendentals, 2nd ed*, by UCLA Professor Jon Rogawski) is located on a web-based platform called LaunchPad, and the homework assignments are located there also. We are offering free access to LaunchPad this term. To access Launchpad, see to the Quick Start Guide in the Get Started module.

Grading Policy

On-line Homework (in LaunchPad	**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 already scheduled (see below for dates) but will be announced also through Canvas announcements and email . On-line quizzes are found in CalcPortal. 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.***
- **Final Exam:** The comprehensive final exam is 40% of your grade. In addition, students need to have a sufficiently high score on the final exam to pass the class. Similarly, an exceptionally high score on the final exam can lead to a grade bump.
- **Curve:** We do not curve individual tests, but there **may** be a curve for the class in the sense that grade ranges that lead to certain grades are adjusted based on overall results.

Tentative Weekly Schedule

Week	Dates	Sections to be covered	Assignments Due
1	6/20-6/26	Sections 5.1, and 5.2, 5.3, 5.4, and 5.6	• Wk 1 Homework and Reading due **Tue 6/28** @ 11:59pm
2	6/27-7/3	Sections 6.1, 6.2, 6.3, 6.4, 6.5, and 7.1	• Wk 2 Homework and Reading due **Mon 7/4** @ 11:59pm • Quiz 1 due **Mon 7/4** at 11:59pm (you have 90 minutes to complete)
3	7/4-7/10	Sections 7.2, 7.3, 7.5, 7.6, and 8.1, and Midterm Review	• Midterm (online) **Fri 7/8** by appointment with Proctor U, 1-2:30pm • Midterm Exam (on-campus) **Fri 7/8**, Time 1-2:30pm, Location Engineering Auditorium 101 • Wk 3 Homework and Reading due **Sun 7/10** @ 11:59pm
4	7/11-	Sections 8.4, 10.1, 10.2, and 10.3	• Quiz 2 available **Fri 7/17** between 12am - 11:59pm (you have 90 minutes to complete)

	7/17		• Wk 4 Homework and Reading due **Sun 7/17** @ 11:59pm
5	7/18-7/22	Sections 10.4, 10.5, 10.6, 10.7, and Final Exam Review	• Final Exam (on-campus) Fri 7/22, T**ime 1-4pm,** Location Enigineering Auditorium 101 • Final Exam (online) **Fri 7/22** by appointment with Proctor U, 1-4pm • Wk 5 Homework and Reading due **Fri 7/22** @ 11:59pm

Midterm and Final Exams

See the **Exam Information** page in the Get Started module for information concerning the midterm and final exam dates, times, locations and requirements. Exams are offered on-campus and online.