



Calculus II | Lecture

Academic Year 2021-2022

Course Information

Course Numbers	Total Credits	Time Requirement
Math 275	4	60 hours

Course Details

Recommended Prerequisites

Math 270 Calculus I Required

Course Description

Calculus II covers integration techniques. This begins with anti-derivatives, integration by parts, integrals of trigonometric products, partial fractions, substitution, and trigonometric substitution. Hyperbolic functions. Improper Integrals, sequences and series, polar coordinates, parametric equations, and conic sections.

Lecture Communication

A website will be set up on Canvas by your instructor.

Log in with your username and password: <https://scuhs.instructure.com>

Faculty Information

Refer to the Canvas course webpage for this information.

Class Meeting Times

Refer to Canvas course webpage for this information.

Instructional Materials

Required Text(s)

Calculus Early Transcendentals by Sullivan/Miranda 2nd Edition



Course Purpose

Student Learning Outcomes

At the conclusion of this course, a successful student should be able to:

1. Recognize the difference between definite and indefinite integrals
2. Understand and apply the Fundamental Theorem of Calculus
3. Compute the area between curves using integral calculus
4. Analyze and compute integrals using integration by parts, trigonometric substitution, partial fractions as well as improper integrals.
5. Analyze sequences and series
6. Understand, transform and sketch polar and parametric equations

Course Schedule

(Subject to slight modifications by the instructor)

Reading Chapters refer to the Sullivan/Miranda 2nd Edition textbook.

Week	Topic	Assessment
1	Module 1: The Integral	Video assignment Homework Assignment
	Module 2: Applications of the Integral	Video assignment Homework Assignment
3	Module 3: Techniques of Integration	Video assignment Homework Assignment
3	Module 3: Techniques of Integration	Video assignment Homework Assignment
4	Module 4: Infinite Series	Video Assignment Homework Assignment
5	Module 5: Parametric Equations; Polar Equations	Video Assignment Homework Assignment

Tentative Grading Procedures

Lecture

Assessment Name	#	Pts Each	Weight	SLO Linkage
Participation	5	3	15%	1-6
Homework	5	10	20%	1-6
Quizzes	5	10	25%	1-6
Exams	2	10	40%	1-6
Total			100%	

Grading scale:

Please note letter grades will be assigned only at the end of the trimester.

A = 90% to 100%

B = 80% - less than 90%

C = 70% - less than 80%

D = 60% - less than 70%

F = less than 60%

W = Withdrawal

Grading procedures:

The format of assessments may include multiple-choice, short answers, labeling, fill-in-the-blank, or matching examinations. Participation points are required and will be assigned by the instructor as the course progresses using any of the following: in-class mini-quizzes, activities, and online quizzes. For online quizzes, students must have a phone, tablet, laptop, or another internet-connected device to participate. Students must be in class during the participation activities to receive participation marks.

Academic Integrity

Visit SCU's [Academic Integrity](#) page to review policies for professionalism and academic integrity.

Teaching Methods and Activities

In classes with scheduled class time, the lecture will be delivered in real-time/live by the instructor. Students must adhere to the attendance policy set out by the instructor for the class. In asynchronous classes, students will review lecture content on their own time. Due to the individualized nature of learning, students should expect to spend as much time as needed based on individual attainment of prerequisite knowledge.

- Lecture Outline PowerPoints, Supplemental Videos, and Support Materials:** The lecture outline is a series of PowerPoint slides on the most important chapter topics that should be reviewed before beginning the Reading Assignment. These slides will also serve as a good reference when completing homework and reviewing for exams. Supplemental videos and support materials contain additional videos or other items related to some of the most important or interesting topics in the chapter. Some videos show fun applications. These are all optional



learning materials.

- **Supplemental Videos:** Its content helps students gain a deeper understanding of the concepts presented in the learning modules and in the textbook. Often, supplemental video pages feature animations, videos, or other interactive learning resources.
- **Homework:** Students reinforce concepts learned in class by completing the homework assignments. Homework assignments are open-book formative assessments where students can have unlimited attempts to practice problems. The highest score achieved is recorded in the grade book. Homework must be completed by the due date – late submissions incur a 2% grade reduction for every day submitted late.
- **Exams:** There are two exams in each class, a mid-term, and a final exam. There will be questions that are similar to all quizzes, homework, questions at the end of each chapter, and any other activity is given. The Exams are all on Canvas. Please pay attention to the due dates. They are final and will not be extended. You must use proctoring methods required by the instructor.

Note: Completing assignments open book (book, instructor office hours, tutor, Google, etc.) is different than testing in an exam environment. It is acceptable and encouraged to use all available resources to learn how to complete an assignment; however, the long-term goal should be to pass the exams without any outside aid.

Best Practices for Studying

- Read before and read after each class. Skim the chapter before it is covered in the lecture. Skim the chapter before it is covered in the lecture to become comfortable with some of the terms associated with each topic. Review each chapter after it is covered in class to enhance understanding of the material.
- Do not wait until the night before homework is due to start the assignment. Understanding of concepts will be enhanced if the time is taken to learn them beforehand and later review the material without being rushed.
- Stay focused by finding an environment to study with few distractions.
- Participate during class by taking notes and looking over them afterward.
- Any topics covered in the course could be presented in subsequent examinations, so it is critical to prepare and learn all presented material.
- Remember that procrastination in an accelerated course can quickly prove disastrous! Failure to learn foundational principles can make all future material seem nearly incomprehensible, so make sure to budget time wisely over the next five weeks.

Specifically for synchronous courses:

- Ask questions for clarification when not understanding the material being covered.
- *Do not skip class, arrive late, or leave early.* Given the accelerated nature of our courses, every minute of class missed can have a real impact on student success in a course.
- Work on assigned problems as close to the time as when the topic is covered in class to increase understanding of specific concepts.
- Find a group of students to study with. This makes studying more fun and helps to learn the material by teaching to and learning from peers. Explaining these concepts to other students aids in mastery of what is covered.

University Policies

Accommodations

As a learning-centered community, Southern California University of Health Sciences recognizes that all students should be afforded the opportunity to achieve their academic and individual potential. The University recognizes



and supports the standards set forth in Section 504 of the Rehabilitation Act and the American with Disabilities Act (ADA). In accordance with its mission and federal and applicable state laws, the University is committed to making reasonable accommodations for qualified applicants for admission and enrolled students with disabilities. A student who needs accommodation(s) due to a disability should contact the Academic Support Office located in the Learning Resource Center.

Faculty and Dr./Patient Relationships

SCU faculty are highly skilled. However, per University Policy, health care is offered to students through the University Health System only. Neither preclinical nor clinical faculty can provide advice, assessment, treatment, or other elements that would be considered part of a Doctor-Patient relationship outside of a clinical setting established for that purpose.

Learning Activities

Students are expected to spend at least two hours for each lecture hour of course time per week on activities and assessments outside the classroom. Examples of activities include but are not limited to writing papers; reading articles or text; small group work; presentations; completing assignments; preparation for assessments; online activities and other activities that do not include direct instructor interaction and involvement.

All university policies apply to this course and all others. For full policy information please consult the university SCU Policy Manual. For a quick reference guide to the following policies: make-up examination, F-challenge examination, grade posting, results of failing grades, student support information, syllabus amendments, special needs, student conduct, and attendance, please consult the academic policies document housed on the [Online Student Services](#).