Calculus for Business and Social Sciences, Spring 2025

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Office Hours: MW 11 am - 2:30 pm, F: 8 am - 11 am
OR by appointment

Students are responsible for knowing the policies of SPC as an institution, and this information is available in the student handbook. Policies that are applied to all sections of this course per the Department of Math and Engineering are found in the common course policies preceding this document. Below are the course policies specific to this course section and this instructor.

Prerequisites: Successful completion of MATH 1314 or MATH 1324 (grade of C or better) or equivalent.

Materials: The following materials are required for this course

Writing: Pencil and paper are required for taking notes during videos, while reading the text, or during class meetings, as well as taking quizzes and exams. Generally, I recommend having a spiral notebook dedicated to notes and solving problems for this class, and a folder for receiving returned/graded work.

Calculators: You will need a calculator with e^x and ln keys will be required. These can be found on scientific calculators (inexpensively obtained from Wal-Mart or any other big-box store) or graphing calculators. Online options such as Wolfram Alpha (`wolframalpha.com`), Desmos (`www.desmos.com` Desmos also has smartphone apps) or GeoGebra (`www.geogebra.org`). Smartphone apps such as Panecal or Class-Calc are also available for low cost (or free). All are great for doing homework or studying. ***Please note that computer software and mobile apps will not be allowed on exams.***

Computer: Access to a computer with stable internet connection will be required for viewing course materials as well as using other software (see "Calculators" above and "Blackboard" below). Students who do not have a computer may find success using mobile devices in some cases. Also, all students have access to suitable computers via the computer labs found at every SPC campus.

Blackboard: Blackboard (accessible via the SPC website) will be used as a central hub for the course. Students will find this syllabus, and all other course materials, as well as assignments, grading rubrics, etc. Students should be checking Blackboard daily for announcements and updates, and to access the homework. Blackboard utilizes students' SPC email, thus students should also be checking their SPC email regularly.

Gradescope: Gradescope is an app that will be used for submitting written work of any form during this course. It will be how assignments are submitted, and how feedback from the grading process is viewed. If you do not have a smartphone or other mobile device, please speak with your instructor as soon as possible.

OneNote: *(This is optional, but highly recommended.)* You should already have access to Microsoft OneNote as an SPC student, and you should have received an email indicating that you have been added to a course (this course) on OneNote. Any student can post questions to their individual notebooks on OneNote, and email me and I can put responses directly into one note. I will also use OneNote to demonstrate problems for students coming in during office hours (in person or virtual). Lastly, any changes made to notes, or additonal examples done for the class will be posted there as well as on blackboard.

Assessment: Grading will be done according to the standard 10 percent scale (i.e. 100% - 90% is an A, etc.) with assignments weighted as follows:

Participation	20%
Tests	20% each
Final Exam	20%

Class Attendance: Attendance to in-person class meetings is required. In order to count towards completion, students must attend at least 80% of class meetings **and** turn in 80% of required course work. Failure to meet one or both of these standards may result in the student being dropped from the course with an X. If a student cannot be given an X, they will be given an F.

If you wish to drop the course on your own (which gives a mark of W) see the drop materials in the "Syllabus & Schedule" section of Blackboard. The last day to drop the course is Thursday, 24 April (4/24).

As this class is a "flipped" course environment, students are expected to arrive to class having

1. worked through the course materials (textbook, videos, etc.) and
2. attempted some of the problems.

The class time will be spent

1. answering student questions over the material
2. working problems from the homework
3. turning in assignments and quizzes.

Assignments: Daily work is essential to developing mastery over the topics presented in this course. It is important for you to be as thorough as possible in completing the assignments as well as taking notes over the lessons. At the end of each week, you will submit all notes taken and your worked problems over the week's lessons on Gradescope. Work for assigned problems should be neat and organized, with problems clearly numbered and answers clearly indicated. Late work is not accepted, but you should make it a habit to review previous material often.

It is essential that enough time is spent on assignments to allow you to repeat problems as often as necessary to fully grasp the material.

Quizzes: Quizzes will be given at most class meetings (except exam days) as a way to gauge class understanding, and will be turned in at the end of class. Quizzes are not dropped and cannot be made up.

Exams: There are three midterm exams and one comprehensive final exam given during this course. These exams will be held exclusively during the classroom sessions of the course. Students must show all work when taking exams. All work should be done neatly and in pencil.

The final exam is comprehensive, and a required part of the course. Failure to take the final exam results in an automatic F. The Final Exam will be held Tuesday, 6 May, at 10:15 am

Email and Communication: The email at the header of the syllabus is the best way to get into contact with me. This should be used as often as necessary to ask questions, or turn in written assignments in the event that Blackboard or Gradescope are down. You may also email incomplete parts of assignments in order to get feedback on how to proceed.

All emails should be formatted with the course number and section, and an adequate heading. Failure to format the subject line properly may result in emails being caught by SPC's email filter. Neither the instructor nor SPC is responsible for emails lost due to improper formatting.

Be sure to confirm that all relevant attachments are sent with the email and that the body of the email contains all relevant information for that correspondence.

Students who wish to set an appointment for a meeting may use the MS Bookings link in the "Office Hours" link in the "Start Here" module.

Showing Work: In all written assignments, submitted work of one kind or another needs to be shown in order for the instructor to properly assess how much of the content has been properly learned and implemented. *When submitting written work any question or component that does not have work associated with it will be given reduced (or no) credit.* The Course Resources area has further instructions and examples of properly showing work.

Civility in the classroom: Students are expected to assist in maintaining a classroom environment that is conducive to learning. Given that this is an online course, "the classroom" is defined as any set of interactions that students will have with one another (primarily discussion boards). Students who are found to be intentionally hurtful or disrespectful, or repeatedly detract from the focus of the discussion boards will have their grade in this category penalized (up to zero credit for a discussion assignment), and may be administratively dropped from the course (with an X or F) for creating a hostile learning environment.

It is important to note the role that students play in their own mathematical education. Just as everybody has had (and continues to have) different life experiences, we all have different mathematical experiences as well. And while it is important that the systems and institutions that people interact with (of which this class is one) are impartial, to expect such from human beings borders on impossible. To that end, it is imperative that all students give space for their classmates to come into the material from where they are, and that we seek to understand each other. The most important capacity students can give each other is the space to be wrong, and to be guided out of misconceptions or errors. Both instructor and student are not just the product of their own hard work and thinking, but also of what their environments (both past and present) allowed them to work or think hard about.

Student Resources: To schedule a face-to-face or virtual meeting with SPC tutors, go to the SPC webpage, click Student Services, and click on Tutoring. There students may choose at which center they wish to have tutoring or if they wish to have a virtual session (face-to-face sessions only require an open spot, while virtual sessions require 4 hours notice). Click the Booking link and log in with SPC credentials. Students can then choose the subject and tutor.

Students also have access to the use of Tutor.com for a few hours each week. Students can access Tutor.com directly from the blackboard homepage, or from the Help section of this Blackboard course.

Week	Sections Covered	**Due Dates** Assignments due by 11 pm on the corresponding Friday, Quizzes due at the end of class.
Week 1 1/13 - 1/17	Introductions Lesson 1: Limits	Assignment 1
Week 2 1/20 - 1/24	Lesson 2: Continuity Lesson 3: Rates of Change, Derivatives	Quizzes 1 (Tues) and 2 (Thurs) Assignments 2 and 3
Week 3 1/27 - 1/31	Lesson 4: Basic Derivative Rules Lesson 5: Marginal Analysis	Quizzes 3 (Tues) and 4 (Thurs) Assignments 4 and 5
Week 4 2/3 - 2/7	Lesson 6: Product and Quotient Rules Lesson 7: Chain Rule	Quizzes 5 (Tues) and 6 (Thurs) Assignments 6 and 7
Week 5 2/10 - 2/14	Exam 1 (Thurs. 6 February)	
Week 6 2/17 - 2/21	Lesson 8: Implicit Differentiation Lesson 9: Related Rates	Quizzes 7 (Tues) and 8(Thurs) Assignments 8 and 9
Week 7 2/24 - 2/28	Lesson 10: First Derivative Test Lesson 11: Absolute Extrema	Quizzes 9 (Tues) and 10 (Thurs) Assignments 10 and 11
Week 8 3/3 - 3/7	Lesson 12: Second Derivatives Lesson 13: Optimization	Quizzes 11 (Tues) and 12 (Thurs) Assignments 12 and 13
Week 9 3/10 - 3/14	Exam 2 (Thurs. 13 March) *3/17 - 3/21: Spring Break*	
Week 10 3/24 - 3/28	Lesson 14: Exponential and Logarithmic Derivatives Lesson 15: Differentials	Quizzes 13 (Tues) and 14 (Thurs) Assignments 14 and 15
Week 11 3/31 - 4/4	Lesson 16: Elasticity of Demand Lesson 17: Antiderivatives	Quizzes 15 (Tues) and 16 (Thurs) Assignments 16 and 17
Week 12 4/7 - 4/11	Lesson 18: Integration by Substitution Lesson 19: Integration by Parts	Quizzes 17 (Tues) and 18 (Thurs) Assignments 18 and 19
Week 13 4/14 - 4/18	Exam 3 (Thurs. 14 April)	
Week 14 4/21 - 4/25	Lesson 20: Area Under the Curve	Quiz 19 (Thurs) Assignment 20
Week 15 4/28 - 5/2	Lesson 21: Applications of the Integral	Quiz 20 (Thurs) Assignment 21
Week 16 5/5 - 5/8	Final Exam (comprehensive) Held Tuesday, May 6 from 10:15 am until 12:15 pm	