Course: Mat 208: Business Calculus
Course ID online: poitevin52810
Room: SB 311
Schedule: TuTh 8:00 — 9:20
Instructor: L. Pedro Poitevin, Assistant Professor
Office: Sullivan Building 308B
Office hours: MWF 1:30 — 2:30; TuTh 11:00 — 12:00
Office phone number: (978) 542-6995
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Course description: Introduction to calculus as applied to business. Differentiation, integration, and their applications are considered in conjunction with polynomial, algebraic, exponential, and logarithmic functions.

Course goals:

1. To familiarize students with the fundamental principles of differential and integral calculus;

2. To familiarize students with applications of differential and integral calculus, especially those related to business, economics, and finance.

Learning objectives: A student who passes this course should be able to:

1. Represent an appropriate relationship between two quantities with a function;

2. Understand and calculate limits;

3. Find instantaneous rates of change;

4. Calculate derivatives of functions;

5. Solve optimization problems employing calculus;
6. Use derivatives to sketch key features of a function;

7. Use exponential and logarithmic functions as mathematical tools;

8. Use techniques of integration to calculate antiderivatives of functions;

9. Find the area under the graph of a curve.

**Attendance policy:** An *advance notice* for an absence to class is typically an e-mail sent to me 12 hours or more in advance of the class meeting the student will not attend. *Permission for absence* is typically an e-mail from me to the student to acknowledge receipt of an advance notice. *Excused absences* are absences for which I have advance notice, and for which the student has a permission for absence. Excused absences, if not excessive in number, will not negatively affect a student’s grade. An unexcused absence during a day when an assignment, quiz, or exam is due will result in a grade of zero for the assignment, quiz, or exam. Initially, I will not take attendance, but this may change if desirable. I reserve the right to penalize students with more than three unexcused absences by reducing their final grade by one letter grade or more. In the event that I wish to exercise this right, notice will be given to students in advance. The student is responsible for completing all course requirements and for keeping up with all that goes on in the course (whether or not the student is in attendance).


**Class format:** Students will be required to do reading assignments before attending class. In class, students will gather in groups assigned by the instructor and discussions of the material will take place.

**Reading assignments:** Students will often be asked to read sections of the book prior to the following class period. Because of our class format, it is very important that students do these assignments. A student who has read the relevant section of the book before class meets will get much more out of it than someone who has not done so. Reading mathematics is not easy at first. It requires a slow pace. Just like one cannot read legalese (the language that lawyers speak) at the speed at which one reads
a novel, one simply cannot hope to read a mathematics textbook without re-reading many sentences several times. The book we will be using has excellent features to help the reader identify the truly indispensable pieces of information, and we shall discuss these features in class, to help students develop strategies for reading the book.

**Online quizzes:** There will be weekly online quizzes. These quizzes will be accessible during a large window of time, but once you get started, you will only get a limited amount of time to finish, as well as a limited number of attempts per question. I encourage you to do part of your homework assignment before doing an online quiz. Doing your homework will prepare you very well for the quizzes.

**Group midterm:** There will also be one group midterm. I will divide students into groups of three or four, and I will give each group an exam that is too long for any one student to solve on his or her own. We will discuss optimal strategies for tackling this task before the midterm takes place.

**Exams:**

- Group Midterm  *Tentatively* Thursday, March 8
- Midterm II  *Tentatively* Thursday, April 25
- Final  Wednesday, May 9, 8:00 - 10:00

**Participation:** Because group work will play an important role in this class, participation will play a role in calculating students’ grades. Students who consistently do the reading assignments, ask questions, and offer help will get full marks. Participation accounts for up to 10% of the student’s final grade.

**Online homework:** Homework will be collected and graded online. Students should keep a complete record of all problems attempted (with solutions, if found) during the semester.

**Grading scheme:** I reserve the right to change the following grading scheme, but it will very likely stand:
Online quizzes 10%
Participation 10%
Online homework 40%
Midterm I 10%
Midterm II 10%
Final 20%

**Statement on equality of access:** Salem State College is committed to providing equal access to educational experience for all students in compliance with Section 504 of The Rehabilitation Act and The Americans with Disabilities Act and to providing all reasonable academic accommodations, aids and adjustments. Any student who has a documented disability should speak with the instructor immediately. Students with disabilities who have not previously done so should provide documentation to and schedule an appointment with the Office for Students with Disabilities and obtain appropriate services.