

MATH 211 - Syllabus Spring 2019

Calculus for Business and Social Science (4).

An elementary treatment of differential and integral calculus, with applications in social science and business. Except with departmental approval students may not receive credit for both MATH 211 and MATH 229.

Prerequisite: MATH 110 or satisfactory performance on the Math Placement Test.

Course Objectives: The course will introduce the central ideas of calculus:

- the notion of limit;
- the instantaneous rate of change of a function as a limit of average rates of change;
- the integral of a function over an interval as a limit of finite sums, and the fundamental relationship between instantaneous rates of change and integrals;
- methods of integration, including integration by parts;
- exponential functions, logarithms, derivatives and integrals arising from their use, and their relation to standard financial models;
- functions of two variables, surfaces and partial derivatives.

The course will show how these concepts can be applied to solve problems in a variety of areas, including business, economics, biology, and sociology.

Text: Applied Calculus, 10th ed., Tan, Sections 1.1 – 1.4, 2.1 – 2.6, 3.1 – 3.5, 4.1 – 4.5, 5.1 – 5.5, 6.1 – 6.6, 7.1, 8.1 – 2

You **MUST** have a WebAssign code for this class. This code comes with the textbook or may be purchased separately at the bookstore. The code may also be purchased directly from the Webassign site which you link to FROM BlackBoard. NOTE that you GET an electronic copy of the book if you buy the only the code - there is NO need to buy the physical book if you don't want it.

Solution manuals and study guides are generally not worth the money.

Suggested Lecture Schedule:

DATE	MONDAY	WEDNESDAY	FRIDAY	RECITATION (Tues/Thurs)
1/14	INTRO & 1.1	1.1 & 1.2	1.4	1.3
1/21	No Class	2.1	2.3	2.2
1/28	2.4	2.4 – 5(Continuity)	2.6	2.5(One-sided limits)
2/4	2.6	Exam Review	Exam 1	Exam Prep.
2/11	3.1	3.2	Rates, Tangent lines	Differentiation
2/18	3.4	3.4	Models Continued	3.5
2/25	4.1	4.1 (Extrema)	4.2	Intro. Econ. Models
3/4	4.2 (Marginal Functions)	Exam 2 Review	Exam 2	Exam Prep.
3/11			No Classes	
3/18	4.3	4.4	4.5	Asymptotes
3/25	4.5	5.2	5.3	5.1
4/1	5.3	5.4	5.5	5.6
4/8	6.1	Exam Review	Exam 3	Exam Prep.
4/15	6.2	6.3 & 6.4	6.5	6.6
4/22	7.1	8.1	8.2	
4/29	Final Review	Final Review		Final Review
5/6	YOUR FINAL	EXAM is	MON 5/6	6:00 - 7:50PM Room: TBA

GRADING: Grades will be based on 3 one-hour exams (300 points), quizzes (50 points), homework (100 points), attendance/participation (50 points), and a comprehensive departmental final exam (200 points). Homework will be done through WebAssign. Makeup tests will be allowed only if the student has made arrangements with their instructor before the scheduled time of the test or if it is a documented emergency. Grading will be based on the percentage of points earned from the total of 700 available. The grading scale is as follows:

If you earn 595 points or more (85%), then you will get an A,

If you earn 525 point or more (75%), then you will get at least a B,

If you earn 455 points or more (65%), then you will get at least a C,

If you earn 385 points or more (55%), then you will get at least a D.

A total of 384 or less may result in an F for the course.

Plus/minus grading may be considered in assigning final grades.