

MTH 241 Calculus for Biological, Management and Social Sciences Fall 2021

Course and instructor information: CRN: 20187 Class time: MW 1:00 – 2:50 PM Zoom link: https://linnbenton.zoom.us/i/96916176668

Instructor: Dr. Mike Hruschka Email: hruschm@linnbenton.edu Office Hours: T 11-12, R 1-2 Office Zoom Room: https://linnbenton.zoom.us/j/170639244

Course Description:

Math 241 introduces calculus as applied to business, the social sciences and life sciences. It uses an intuitive development of the calculus of polynomial, exponential and logarithmic functions, extrema theory and applications.

Prerequisites:

MTH 111 College Algebra or equivalent with a grade of "C" or better.

Student Learning Outcomes: Upon completion of the course, the student will be able to:

- 1. Identify average and instantaneous rates of change in business and biology applications.
- 2. Connect graphical, numerical, and symbolic interpretations of the difference quotient and the derivative.
- 3. Apply differential calculus techniques to describe the behavior of business and biological functions.
- 4. Apply techniques of integral calculus to determine net changes in business and biological applications such as marginal analysis, velocity, and growth.

Required Course Materials:

- We will be using a <u>free online textbook</u> and online homework through MyOpenMath.com. MyOpenMath also contains links to video lectures.
- Computer with microphone.
- Regular, reliable internet access for attending Zoom class meetings, watching videos, and completing online homework assignments and projects.
- Graphing calculator or graphing software : A TI80 series calculator or Desmos will work, and there are many other possibilities.
- Graphing or scientific calculator for tests (no smart phones or laptops will be allowed on the tests).

Enrolling in MyOpenMath:

0 If you have used MyOpenMath before, log in and skip to step 6

1 Go to <u>www.myopenmath.com</u>

- 2 Click on "Register as a New Student"
- 3 Enter a user name, I recommend using your student ID number
- 4 Choose and confirm a password, one you will not forget
- 5 Enter your first and last names, and your e-mail address
- 6 Enter the Course ID: 124934
- 7 Enter the Enrollment Key: F2021

Grading Policy:

Your grades may be viewed on <u>MyOpenMath.com</u> and will be approximately based on the following:

2 T	ests (20% each)		40%				
Final Exam		25%					
Homework (MyOpenMath)		25%					
Oth	her work		10%				
Grading Scale: A:	90 -100%	B: 80 – 89%		C: 70 - 79%	D: 60 - 69	9%	F: 0 - 59%

A grade of Incomplete may be assigned at the discretion of the instructor under special circumstances. The student must have completed the majority of the course and be passing the course prior to the "special circumstance".

The grading scheme may change if in-person, proctored tests are not possible.

Tests:

All tests (including the final exam) will be given on the LBCC Albany campus in White Oak Hall 128. The dates and times of the tests will be

Test 1: October 18, Monday 1-2:50 PM

Test 2: November 15, Monday 1-2:50 PM

Final Exam: Monday, December 6, 1:00 – 2:50 PM.

You must bring a valid photo ID (Student ID, Driver's License, or Passport) to each test. You are required to wear a mask whenever you are on campus. If you have a schedule conflict, you may arrange with the instructor, ahead of time, to take the test in the Testing Center. Tests cannot be made up, but the final exam grade will replace the lowest test grade, if the final exam grade is higher.

Homework:

Your homework assignments will be completed in MyOpenMath. As a general rule, homework assignments will be due by 8 PM 1 week after the material is covered in class (i.e. 8 PM Sunday and Tuesday). I strongly advise against waiting until the last minute to do the homework.

Each student has 4 **"late passes"** that can be used to extend a homework deadline by 48 hours. These must be applied **before** the assignment is due. At the end of the quarter your two lowest homework scores will be dropped. There will also be an occasional homework assignment outside of MyOpenMath.

Other work:

This will consist of 2 small projects.

Resources:

MyOpenMath: Most of the class will take place in MyOpenMath and Zoom.

Class time: Zoom sessions will consist of interactive lectures and small group work. Class time is a great time to ask questions of your instructor and fellow students.

Office hours: This is time I have set aside to answer students' questions. If you have a question, please ask. I will also respond to email, and to messages in MyOpenMath within 1 business day. I am also available by appointment and at the Learning Center.

Learning Center:

- The Math Help Desk is open for <u>Zoom</u> and in person (above the LBCC Albany Library) drop-in help. This is a place to ask a question or 2, think about things for a while, and come back.
- If you want to sit down with a tutor for an hour go to the <u>tutoring webpage</u> to schedule an appointment. Students can get up to 3 hours per week of tutoring help at the tutoring center.

Student Help Desk: Get help with IT issues or check out a laptop or internet hotspot

Tips for success:

- Download and read the blank class notes and relevant sections of the book before coming to class. Come to class and ask questions. Review your (or my) class notes after class, the same day if possible. Start the homework as soon as possible after we have covered it in class.
- Expect to spend at least 10 hours per week on this class in addition to the regular Zoom meetings; more if you are having difficulty.
- Find the resources that work best for you.

Academic Honesty:

I assume that you are ethical and honest. However, if there is an incident of academic dishonesty (cheating), you will receive a score of zero for that test/assignment and the incident will be reported to the college administration for possible further disciplinary action. If there is a second offense, you will receive a grade of F for the course and the incident will be reported to the college administration with a recommendation for disciplinary action.

Special Circumstances:

Students who have any emergency medical information the instructor should know of, or students with documented disabilities who may need accommodations, should **make an appointment with the instructor as early as possible, no later than the first week of the term.** If additional assistance is required, the student should contact the Center for Accessibility Resources at 541-917- 4789.

LBCC Comprehensive Statement of Nondiscrimination:

LBCC prohibits unlawful discrimination based on race, color, religion, ethnicity, use of native language, national origin, sex, sexual orientation, marital status, disability, veteran status, age, or any other status protected under applicable federal, state, or local laws.

Statement of Inclusion:

The LBCC community is enriched by diversity. Each individual has worth and makes contributions to create that diversity at the college. Everyone has the right to think, learn, and work together in an environment of respect, tolerance, and goodwill. (related to Board Policy #1015)

The instructor reserves the right to make changes to the syllabus/calendar at any time.

MTH 241 Calculus for Biological, Management and Social Sciences Fall 2021 (*Tentative Schedule*)

	Tail 2021 (Tentative Schedule)				
	Monday	Wednesday			
week 1 27 Sep – 1 Oct	Intro, 2.1*	2.2, 2.3			
week 2 4 – 8 Oct	2.3 cont., 2.4	2.4 cont., 2.5			
week 3 11 – 15 Oct	2.6	(2.7, 2.8), review, catchup			
week 4 18 – 22 Oct	Test 1 (covers 2.1 - 2.6)	Group work, 2.9			
week 5 25 – 29 Oct	Test feedback, 2.9 cont., 2.10	2.11			
week 6 1 – 5 Nov	2.11 cont., 3.1	3.1 cont.			
week 7 8 – 12 Nov	3.1 cont.	3.1 cont., 3.2			
week 8 15 – 19 Nov	Test 2 (covers 2.7 – 3.1)	Group work, 3.3			
week 9 22 - 26 Nov	Test feedback, 3.4, 3.5, 3.6	3.6 cont.			
week 10 29 Nov – 3 Dec	Selections from 3.7 and 3.8	Review, catchup			
Finals 6 – 10 Dec	Final Exam 1:00 – 2:50				

* Chapter 2, section 1 of the textbook.