MTH 241 Calculus for Biological, Management and Social Sciences Spring 2022

Course and instructor information:

CRN: 40533
Class time: MW 12:30 – 2:20 PM
Class Room: BC 234

Instructor: Dr. Mike Hruschka
Email: hruschm@linnbenton.edu
Office Hours: M 4-5 BC-101 and by appointment

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 free online textbook and online homework through MyOpenMath.com. MyOpenMath also contains links to video lectures.
- Regular, reliable internet access for completing online homework assignments.
- 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 www.myopenmath.com
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: 141462
7 Enter the Enrollment Key: S2022

Grading Policy:
Your grades may be viewed on *MyOpenMath.com* and will be approximately based on the following:

2 Tests (20% each)	40%
Final Exam	25%
Homework (MyOpenMath)	25%
Graded activities	10%

Grading Scale: A: 90 -100% B: 80 – 89% C: 70 - 79% D: 60 - 69% 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 taken in person in the classroom. If you have a documented emergency, 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.

Graded activities:
There will be 2 graded activities, each done in class on the next class day after each test.

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

Class time: Classes 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 hour: 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 and Career Center at the Benton Center and at the Learning Center on the Albany Campus.

Learning and Career Center: I am available at the Learning and Career Center at the Benton Center after class (MW 2:30 – 4)

Learning Center (above the LBCC Albany Library): A place to study and get math (and other) help.

- The Math Help Desk is a place to ask a question or two at a time.
  - In person hours: M-F 9-4
  - Zoom hours: M-F 8-8, Sa-Su 11-3
- If you want to sit down with a tutor for an hour go to the tutoring webpage to schedule an appointment. Students can get up to 3 hours per week of free 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 8 hours per week on this class in addition to the regular class 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
Spring 2022 (*Tentative Schedule*)

	Monday	**Wednesday**
week 1 28 Mar – 1 Apr	Intro, 2.1*	2.2, 2.3
week 2 4 – 8 Apr	2.3 cont., 2.4	2.5
week 3 11 – 15 Apr	2.6, 2.7	(2.8), catchup, review
week 4 18 – 22 Apr	Test 1	Graded Activity 1, 2.9
week 5 25 – 29 Apr	Test feedback, 2.10	2.11_1, 2.11_2
week 6 2 – 6 May	3.1	3.1 cont.
week 7 9 – 13 May	3.2	Catchup, Review
week 8 16 - 20 May	Test 2	Graded Activity 2, 3.3
week 9 23 - 27 May	Test feedback, 3.4	3.5, 3.6
week 10 30 May – 3 Jun	Holiday	3.7, catchup, review
Finals 6 – 10 Jun		Final Exam 1:00 - 2:50

* Chapter 2, section 1 of the textbook.