

DIFFERENTIAL CALCULUS

MTH 251 Syllabus

Instructor: Bea Michalik

E-mail: michalb@linnbenton.edu (Please allow 24 hours for response.)

Website: <http://cf.linnbenton.edu/mathsci/math/michalb/web.cfm>

Course Description:

We will learn to calculate the derivative of a function and to use derivatives in simple applications. Equations involving derivatives are called differential equations. Today, differential equations are one of the fundamental mathematical tools for the study of systems that change over time, and are used in most areas of science, engineering, and mathematics. We will also study the definite integral, the fundamental theorem of calculus, numerical integration and area under a curve.

Course Materials

- We will use a **free online textbook** and online homework (MyOpenMath).
- The book is available for sale. Please check MyOpenMath for more information.

- Regular access to the internet to complete homework.
- Calculator

Prerequisite

- MTH 111 College Algebra
- MTH 112 Trigonometry

Grading

There will be three in-class midterm exams and a final exam, each valued at 100 points, daily quizzes and very importantly online homework. Here is how much each will contribute to your final grade:

- Final Exam 25%
- Tests 45%
- Quizzes 15%
- Homework 15%

Your course grade will be derived from your *Total Course Points*
(**A:**100%-90%, **B:** 89%-80%, **C:** 79%-70%, **D:** 69%-60%, **F:** below 60%).

Special Grades

An incomplete grade I may be issued for a student who is making satisfactory progress (Grade of C or better) in the course, but who has failed to complete the final exam. Any student seeking an incomplete must discuss this option with me and sign an agreement prior to the time when grades are issued.

Class Attendance

Please come to every class on time. Please let me know ahead of time if you cannot come. Coming late or leaving early disturbs me and your classmates, so please commit to being in the class for the whole time.

3 Tests and Final Exam

- You may use calculators on tests, including graphing and programmable ones, but you may not operate any device that has internet or wireless capability, including computers, pads, or phones. Tests are closed book, but you may bring a 3x5 index card (written on both sides) to help organize your thoughts.
- Tests will take place in our classroom (please see the calendar for dates and times).
- If you miss one test, that score will automatically be replaced by your Final Exam score, so there should be no make-up tests.
- You should not have more than two tests scheduled on a particular day. Let me know if you do.

Quizzes

Every time we meet I will ask you to solve a short quiz problem. It will be a problem using skills you learned in the previous class or on the current day. There will be no quizzes on testing days.

Homework

Homework will be completed using MyOpenMath website. The homework is due before the next class. You have 8 late passes that let you extend the due date for particular homework by 48 hours. Go to www.myopenmath.com and click on "Register as a New Student".

- Enter a user name and password of your choice, write it down.
- Enter your first, last names, and your mostly used e-mail address (can be your private address)
- Enter the Course ID and the Enrollment Key listed in the top right corner of the Syllabus Highlights.

Upon completion of the course, you will be able to:

- Calculate, interpret and communicate the concepts of limits and derivatives.
- Recognize when and how to apply calculus tools to solve problems in business, the sciences, and engineering.
- Connect the graphical behavior, numerical patterns and symbolic representation of functions and their derivatives.

Academic Dishonesty

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 issuing disciplinary action.

Supporting Diversity

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. (For further information please visit <http://po.linnbenton.edu/BPsandARs>)

Cell Phones and Laptop

Cell phones must be off during exams and should not ring during class. Exit quietly if you need to take a call during class. If you distract the class with a phone or a computer, you will be asked to turn it off or leave.

Inclusion

The LBCC community is enriched by diversity. Everyone has the right to think, learn, and work together in an environment of respect, tolerance, and goodwill. I actively support this right regardless of race, creed, color, personal opinion, gender, sexual orientation, or any of the countless other ways in which we are diverse. (Related to Board Policy #1015.)

Special Needs

Students who may need accommodations due to documented disabilities, or who have medical information which the instructor should know, or who need special arrangements in an emergency, should speak with the instructor the during the first week of class. If you have not accessed services and think you may need them, please contact please contact Accessibility Resources (541) 917-4789.