

MTH 251 Differential Calculus Winter 2019 30152

T, R @ 11-12:50 and F @ 12-12:50 in WOH 113

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Course Description

This is the first course in the calculus sequence. We will discuss functions, limits, continuity, rates of change, tangent lines, differentiation, curve sketching, related rates, applications and optimization. Upon completion of the course, the student 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; and connect the graphical behavior, numerical patterns and symbolic representation of functions and their derivatives.

Course Materials

- Regular access to a computer and the internet.
- MyMathLab Access Class Code: harbert38782
- A scientific calculator or graphing calculator that does not have a symbolic manipulator. The TI-36X-Pro or TI-84 are recommended.

Student Learning Outcomes

When you complete this class, you will be able to:

- Calculate, interpret and communicate the concept of the derivative.
- Differentiate a variety of functions using multiple techniques.
- Recognize when and how to apply calculus tools to solve problems in business, the sciences, and engineering.

How will your grade be calculated?

Your grade will be determined by completing the different types of assignments outlined below.

Homework, Projects, In-class Activities

Completing the homework is critical to your success in this class. Homework will be online. You must get a Mymathlab account and keep up with homework assignments online. Homework is expected to be completed on time. Late homework will be penalized by 10% per day. In-class activities or projects may also be assigned throughout the course. Your homework grade will be calculated by taking the average of all homework, projects and in-class activities. **In class activities cannot be made up**.

Quizzes

Quizzes will be given approximately weekly and will cover material from the previous weeks classes. Make sure that you stay up to date with all homework assignments and ask questions when you have them. The lowest quiz will be dropped. Your quiz grade will be calculated by averaging your best quiz scores. **Quizzes cannot be taken late and cannot be made up.**

Tests

In this class, we will have two tests and a comprehensive final exam. All tests will cover material discussed in class and in the homework. All tests will be taken in class. If you must miss a test, you are required to contact your instructor **in advance** of the testing time. Alternate arrangements may be made in the case of extreme circumstances beyond the student's control and will be at the discretion of the instructor. You may also be required to present written proof of your circumstances. If you miss an exam you will receive a zero for that exam, there are no retests or make-up exams.

Comprehensive Final Exam: The comprehensive final exam will be given in our normal classroom on **Tuesday of Finals week from 12:30-2:20.**

Overall Grade

Your overall grade will be calculated using a weighted average based on the following weights:

25% - Homework, Projects, In class Activities 10% - Quizzes

40% - Two Tests

25% - Final Exam

Your overall grade will be assigned based on the scale:

A: 90%-100%

B: 80-89%

C: 70%-79%

D: 60-69%

F: Less than 59%

No "Y" or "WP" will be given in this class.

What can you do to be successful in this class?

Attend Class: There is a strong link between good attendance and success in math courses. Attending class is more than just showing up, it is also means that you participate in the class discussions and activities.

Complete your Homework on time: Homework is your opportunity to practice. Your homework for the section we talk about in class should be completed before the following class. Completing your homework on time will help prepare you for the next topic.

Get HELP! If you have questions, PLEASE come see me and ask! I have scheduled office hours but you're welcome to come in at other times too. Visit our class in My Math Lab for helpful links, class notes, handouts and other information.

Check out the online notes: My daily class notes will be available through a link to Onenote. You will find the link in on my instructor website.

Form a study group: Your classmates are important resources for understanding and completing the homework. Often a fellow student can explain things in a different way than your instructor. You gain a deeper understanding of mathematical concepts when you express them in your own words and explain them to someone else. It is strongly recommended that you study together with other students in small groups.

Use the Learning Center: The Learning Center, WH226, is an excellent place to study and to get help with your homework. Check out what the Learning Center has to offer:

- Free wireless is available in the Learning Center
- The relaxed atmosphere and table arrangement in the Learning Center provides a great location for study groups to meet and work.
- Instructional assistants are available to answer your math and graphing calculator questions.
- The Learning Center offers some free individual and small group tutoring in addition to the help desk.

Please remember to logon and logoff the computer with each visit to the Learning Center.

LRC Hours

Class Policies

Attendance Policy

Your regular attendance and thoughtful participation in class are essential for your success in learning math. Your <u>regular</u> attendance is mandatory. If you are unable to attend class, please let your instructor know ahead of time either in person or by email. Students are responsible for any material, updates, or other information covered during class. In addition, students should expect to log into My Math Lab several times each week to check for announcements, study course materials, and complete online homework.

Cell Phone Policy

- Do not use your cellphone in class, at all.
- Cell phones should be out of sight and put away.
- If your cell phone use during class becomes disruptive, you will be asked to leave the classroom.

Special Circumstances: Students who have any emergency medical information the instructor should know of, who need special arrangements in the event of evacuation, 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 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)

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.