

# Linn Benton Community College

## **MTH 251 - DIFFERENTIAL CALCULUS**

**Fall 2020**

INSTRUCTOR: Hassan Mehdi

TIME: T,TH 3-5 if necessary

CLASSROOM: ONLINE (Asynchronous)

CRN: 20420

EMAIL: mehdi@linnbenton.edu

OFFICE HOURS: ONLINE: TUESDAY 3:00-4:00

### Course description:

This course is the first course in the calculus sequence for students majoring in the fields of mathematics, computer science, science or engineering. Topics we will cover will include functions and their characteristics; limits; continuity; tangent lines; rates of change; differentiation of polynomial, exponential, logarithmic and trigonometric functions; related rates; optimization; curve sketching; and anti-differentiation.

Course Material: We will be using a free online textbook and online homework (My Open Math). The book is also available for sale if you like to get a physical copy. Check MyOpenMath for more information.

Prerequisites: MTH 111 – College Algebra and MTH 112 – Trigonometry

Course Grades: Grading in this class will be based on the followings:

2 Tests (15% each)	30%
Final (comprehensive)	30%
MyOpenMath Hw	25%
Activities	15%

Grades will be assigned as outlined below:

A	90-100%
B	80- 89%
C	70-79%
D	60-69%
F	0-59%

Homework: Success in a math class goes hand-in-hand with completing the homework assignments. Homework will be completed and submitted electronically using MyOpenMath. Assignments due dates are shown on MyOpenMath. You have 8 late passes that extend the due date by 48 hours.

### **Materials Needed:**

- A device, with a webcam, to access the Internet. This can be a tablet, laptop or phone (not the best choice, but whatever works). LBCC may have laptops to check out if you do not have one.
- Access to the Internet.
- A calculator: you can use the one on your device if you don't have one.

- Other: A good attitude! This class was not originally planned for a virtual environment, but we are making it work. You can expect some references in our worksheets to still refer to an in-person class environment.
- **Enroll in the Class Software: MyOpenMath**
  - a. Go to [www.myopenmath.com](http://www.myopenmath.com)
  - b. Click on “Register as a New Student”
  - c. Enter a username, I recommend using your student ID number
  - d. Choose and confirm a password, one you will not forget
  - e. Enter your first and last names, and your e-mail address
  - f. Enter the Course ID: 91656
  - g. Enter the Enrollment Key: MTH251

### **Using Lockdown Browser for Online Exams**

This course requires the use of Lockdown Browser for online exams. Watch this [short video](#) to get a basic understanding of Lockdown Browser and the webcam feature (which is required for exams).

To take an online test, you will need to start in Moodle, rather than MyOpenMath. You will click on the link for the exam in Moodle, start the Lockdown Browser, answer the question “Are you ready to start” and will then get a link to navigate to the exam in MyOpenMath. (You won't be able to access the exam with a standard web browser, not will you be able to access it directly in MyOpenMath.) For additional details on using Lockdown Browser, review this Student [Quick Start Guide \(PDF\)](#) or [Video](#)

Finally, when taking an online exam, follow these guidelines:

- Select a location where you won't be interrupted
- Before starting the test, know how much time is available for it, and that you've allotted sufficient time to complete it
- Turn off all mobile devices, phones, etc. and don't have them within reach
- Clear your area of all external materials — books, papers, other computers, or devices
- Remain at your desk or workstation for the duration of the test
- Lockdown Browser will prevent you from accessing any other websites or applications except MyOpenMath

### **Where can I find resources to help me be successful?**

- Use the online Math Help Desks! Located in Zoom at: <https://linnbenton.zoom.us/j/94627678411>
  - Open from 9am - 7pm Monday through Friday, 11am - 4pm Saturday and Sunday

## Other

**Cultural Richness:** To promote academic excellence and learning environments that encourage multiple perspectives and the free exchange of ideas, all courses at LBCC will provide students the opportunity to interact with values, opinions, and/or beliefs different than their own in safe, positive and nurturing learning environments. LBCC is committed to nurturing the development of culturally literate individuals capable of interacting, collaborating and problem-solving in an ever-changing community and diverse workforce.

**Academic Dishonesty:** If there are any incidents of cheating, an incident report will be sent to the Director of Admissions, and it will have severe consequences for the student.

**Nondiscrimination Statement:** Linn-Benton Community College 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.

### **Special Circumstances:**

Accessibility Services and Emergency Planning - Meet with Instructor Week One. If you have emergency medical information for your instructor, need special arrangements to evacuate campus, or have a documented disability, please meet with your instructor, by appointment, no later than the first week of the term, to discuss your needs. If you have a documented disability that will impact you at college and you seek accommodations, contact the Center for Accessibility Resources (CFAR) for intake and to document your disability with LBCC. Then, each term, at least two to three weeks prior to the start of classes, submit your "Request for Accommodations" form to CFAR and pickup instructor letters. CFAR may be reached from any LBCC campus/center by email to [formata@linnbenton.edu](mailto:formata@linnbenton.edu) or by calling 917-4789. Letter pickup is available at each LBCC campus/center.

### **Outcomes: Upon completion of this course, the student will be able to:**

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