

# MATH 120: ELEMENTARY CALCULUS

Summer 2024

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<b>Instructor:</b> Junaid Aftab	<b>Time:</b> MTuWThF: 9:30-10:50 A.M
<b>Email:</b> <a href="mailto:junaida@umd.edu">junaida@umd.edu</a>	<b>Place:</b> Online on Zoom

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**Course Description:** MATH 120 introduces the basic ideas of differential and integral calculus, with emphasis on elementary techniques of differentiation and applications.

The class will meet **MTuWThF** between **9:30 A.M and 10:50 A.M.** from **May 28, 2024 to July 5, 2024.** The class will be **held online via Zoom**, and the Zoom link will be posted on the ELMS page before the first day of class. **Please log in to ELMS to access the Zoom link.**

In case an online class has to be cancelled, I will inform you via ELMS. In case any assignment or exam has to be rescheduled, I will inform you via ELMS.

**Prerequisites:** The student must have taken one course with a minimum grade of C- from MATH 113 and MATH 115. Or the student must be eligible to register for MATH 120 (or higher) based on the Math Placement Test.

**Restrictions:** The course is **NOT** open to students majoring in mathematics, engineering, the biological sciences, biochemistry, chemistry, or the physical science. Students registered for this class must not have completed MATH 130, MATH 136 or MATH 140 with a grade of C- or higher.

**References:** We will be using *Elementary Calculus* by Lawrence C. Washington as our main reference. The textbook is free, and it will be uploaded in the in the Files section of ELMS.

**Course Page:** ELMS will be used to maintain the course page. Here is the link to the course page: <https://umd.instructure.com/courses/1373442>

**Office Hours:** Office hours will be on Zoom on **Friday 11:00 A.M - 12:00 P.M.** Check ELMS for the Zoom link.

**Grading Policy:** There will be attendance, group quizzes, two midterm exams, and a cumulative final exam. Here's the rubric:

Attendance .....	5 %
Groups Quizzes .....	10 %
Homework .....	15 %
Three Exams .....	70 % (23.3 % each)

I will set the final letter-grade cut-offs based on the class's performance. The cut-offs will be no harsher than standard (100-97% = A+, 97-93% = A, 93-90% = A-, etc).

**Honor Code:** The UMD Code of Academic Integrity is administered by the Student Honor Council. The Code sets standards for academic integrity. You will be asked to write and sign the following honor pledge on each quiz and exam unless exempted by your instructor: "I pledge on my honor that I have not given or received any unauthorized assistance on this quiz/examination." Note that copying solutions from other sources is plagiarism. Lack of knowledge of the academic honesty policy is not a reasonable explanation for a violation.

## Course Policy:

- **No calculators** will be allowed on quizzes or exams.
- **Make-up exams will only be given for absences deemed "excused"** in accordance with University policies. Please see the link below.
- Students requiring special exam accommodations should register with the University's Accessibility and Disability Service (ADS) to make appropriate testing arrangements with them. Please see the link below.

- **Cheating is bad! Don't do it.** Any type of academic dishonesty, direct or indirect, will not be tolerated under any circumstances and will be reported to the University's Student Honor Council.

### Class Policy:

- Everyone is encouraged to both attend and participate in class. **Hence, 5% of your grade will be determined by your attendance in class.** Please attend class, and ask questions. Chances are if you're confused about something, other students are also confused about the same thing.
- We will have several 15-minute group quizzes every week or every other week in class. Students will be divided into randomly generated breakout groups on Zoom. Students in each breakout room are encouraged to discuss the problems with their classmates. **At the end of the quiz, each student will upload their work on GradeScope.**
- Homework will be due every few days. **You should be discussing homework together, but you must submit your own work.** The online homework uses a program from Ming Press. This needs to be purchased. You can buy an access code from the bookstore. However, it is slightly cheaper to do this directly at their website: <https://mingpress.com/>. You should follow the instructions there. It will cost you approximately \$30. **You should use your UMD email account when registering.**

### Tentative Course Outline:

- ! Chapter 1: Lines
- ! Chapter 2: Derivatives
- ! Chapter 3: More Derivatives
- ! Chapter 4: Some Applications
- ! Chapter 5: The Product Rule
- ! Chapter 6: Exponential Functions
- ! Chapter 7: Logarithms
- ! Chapter 8: Exponential Models
- ! Chapter 9: Integrals
- ! Chapter 10: Areas & Probabilities
- ! Chapter 11: Functions of two variables

### External Resources:

- University website: <https://www.umd.edu>
- Math Department Test Bank: [ter.ps/mathtestbank](https://ter.ps/mathtestbank)
- Math department tutoring: [www-math.umd.edu/undergraduate/resources.html](http://www-math.umd.edu/undergraduate/resources.html)
- University make-up policy: [www.testudo.umd.edu/soc/atedasse.html](http://www.testudo.umd.edu/soc/atedasse.html)
- Other university tutoring: [www.tutoring.umd.edu](http://www.tutoring.umd.edu)
- Accessibility and Disability Service (ADS): [www.counseling.umd.edu/ads/](http://www.counseling.umd.edu/ads/)
- University Emergency Phone Line: 301-405-7669