DeAnza College

Fall 2024 MATH 1A–25 MW 4:00 – 6:15 S45

Instructor:	Lin Zhang **Email**: zhanglinlin@fhda.edu **Canvas:** https://deanza.instructure.com/
Text:	**Calculus Volume 1** (Openstax) Please follow the link and download the PDF file to your computer. MyOpenMath is a free homework platform embedded in Canvas.
Equipment:	**Graphing Calculator is recommended (**TI 83plus , …) During lesson, you can use your phone: **TI Emulator Apps** For iPhone: GraphNCalc83 (free with ads) For Android: Graphing Calculator plus 84 83 ($2.99)
Office Hours:	**S45 MW 6:15 – 6:45PM or email me for appointments**

1. Prerequisite:

MATH 32, MATH 32H, MATH 43 or MATH 43H with a grade of C or better, or appropriate score on Calculus Placement Test within the past calendar year

2. Course Objective

- Analyze and explore aspects of the differential calculus.
- Compute and interpret limits of functions using analytic and other methods, including L'Hospital's Rule.
- Apply the definition of continuity using limits to analyze the behavior of functions.
- Find the derivative of a function as a limit.
- Derive and use the power, quotient, product, and chain rules to differentiate functions, including implicit and parametric functions, and find the equation of a tangent line to a function.
- Graph functions using methods of calculus
- Apply the derivative to solve applications including related rate problems and optimization problems;
- Define the antiderivative and determine antiderivatives of simple functions.

2. Student Learning Outcomes:

- Analyze and synthesize the concepts of limits, continuity, and differentiation from a graphical, numerical, analytical and verbal approach, using correct notation and mathematical precision.
- Evaluate the behavior of graphs in the context of limits, continuity and differentiability.
- Recognize, diagnose, and decide on the appropriate method for solving applied real world problems in optimization, related rates and numerical approximation.

3. Support Services

Students with disabilities needing reasonable accommodations should inform me in the beginning of the quarter. To begin the reasonable accommodations process, I will need to fill out a request form from the Disabilities Support Services (DSS). For more information, please visit the DSS office at SCSB 141, call (408) 864-8753 /(408) 864-8748 TTY, or go to www.deanza.edu/dss.

4. **Tutoring**

The Math, Science, and Technology Resource Center **(S43)** provides free online and in-person tutoring **Monday – Thursday 9AM – 6PM** and **Friday 9AM – 12PM.** For more information, go to www.deanza.edu/studentsuccess/mstrc

You can also use "NetTutor" link on the navigation in Canvas or attend my office hour. Email me for appointments if you want to meet at alternative time.

5. **Academic Integrity:**

Copying another student's solutions, or using unauthorized materials (online search engine or solution manual) during tests are considered cheating. Violation of this policy will result in the student receiving ZERO credit for the entire assignment or test.

6. **Drop Policy:**

Attendance is integral to your success in this course. I expect you to attend all class meetings. **It is always YOUR RESPONSIBILITY to drop** the class if you feel like you can't continue for any reason.

7. **Grade:**

All grades will be posted on Canvas as soon as they become available. It is your responsibilities to check Canvas at least once a week to monitor your grades for the class.

In Class (drop 2)	10%
Homeworks (drop 1)	16%
6 Quizzes (drop 1)	10%
2 Exams	44%
Final Exam	20%
Total	100%

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

In Class Participation

Each lesson has in-class practice near the end. You will complete the handout and turn them in. Keep in mind that your problems are very similar to the ones I do, but adapted with different numbers. In the events of absence, you will receive zero for the in-class. Two lowest scores will be dropped for overall grade calculation at the end of the term.

Quizzes

Six Quizzes are proctored quizzes and will be given in the classroom on quiz days. Quiz problems are similar to homework problems and lecture examples.

Homework:

Homework assignments are assigned from **textbook** or MyOpenMath test bank. You need to submit your answers to **MyOpenMath** (embedded in **Canvas**). Even I am not collecting work, you are supposed to work out the problems on your own paper.

Late Work Policy

Each student are given **6 late passes (5-day extension each)** this quarter. After a homework assignment is due, you should see a "late pass" button in the description of the assignment. If an assignment is due on 1/12, using one late pass will extend the due date to 1/17. After using all your late passes, you can complete an assignment in "**Practice**" mode, and there is a **20% penalty** when I record your grade later.

Midterms and Final

Two midterms and ***one final exam*** will be given with opportunities of test corrections. Test correction opportunities will be available for midterms, not the final. Every test counts. You CAN'T drop any.

Week	Monday	Wednesday	Notes
1	9/23 Chapter 1 Review	9/25 2.1 Different Quotient 2.2 Limit of a Function	
2	9/30 **Quiz 1** 2.3 Limit Laws 2.4 Continuity	10/2 3.1 Definition of Derivative 3.2 Derivative Function	**Sun. Oct. 6th** last day to add or drop with no record.
3	10/7 **Quiz 2** 3.3 Differentiation Rules 3.4 Rate of Change	10/9 3.5 Derivatives of Trig 3.6 Chain Rule	
4	10/14 **Quiz 3** 3.7 Derivative of Inverse	10/16 3.8 Implicit Differentiation 3.9 Derivatives of Exp and Log	
5	10/21 4.1 Related Rates 4.2 Linear Approximations	10/23 **Test 1** Ch 2, 3.1 – 3.7	
6	10/28 4.3 Max and Min	10/30 **Quiz 4** 4.4 Mean Value Theorem	
7	11/4 4.5 Derivatives and Sketch functions	11/6 **Quiz 5** 4.5 Derivatives and Sketch functions	
8	11/**11** **No Class** Veterans Day	11/13 4.6 Limits at Infinity and Asymptotes	**Friday, Nov. 15th:** last day to drop with a "W".
9	11/18 4.7 Applied Optimization 4.8 L'Hopitals' Rule	11/20 **Quiz 6** 4.9 Newton's Method	
10	11/25 4.10 Antiderivatives	11/27 **Test 2** 3.8-3.9, 4.1 – 4.8	**Thanksgiving Holiday** Thursday Nov. 28 – Sunday Dec. 1
11	12/2 7.1 Parametric Curves	12/4 **Quiz 7** 7.2 Calculus of Parametric Curves	
12	12/9 No Class	12/11 **Final Exam** **4:00 – 6:00 PM**	

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• Evaluate the behavior of graphs in the context of limits, continuity and differentiability.
• Recognize, diagnose, and decide on the appropriate method for solving applied real world problems in optimization, related rates and numerical approximation.

Office Hours:

M,W	06:15 PM	06:45 PM	In-Person	S45
M,W	01:00 PM	01:30 PM	In-Person	E37