MATH-1A.35 Syllabus Fall 2024

Meets: Mon/Wed 6:30PM-8:45PM. Room: De Anza MLC 270

Instructor: Prof. Vadim von Brzeski. Email via Canvas is my preferred method of contact, but you

can also email me directly at <u>vonbrzeskivadim@deanza.edu</u> – **you can email me**

anytime – I will usually respond in a few hours, but definitely within 24 hrs.

Office Hours: Mondays 5:00PM – 6:00PM, or by **appointment**. Location: De Anza E37

Course description: Introduction to differential calculus; theory and applications.

Pre-requisites: 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. Proficiency

with algebra.

Materials: 1. The **required** textbook is available **free** online:

Calculus, Volume 1 from OpenStax (ISBN 1-947172-13-1). You can:

- a) View the book online
- b) <u>Download a PDF</u>
- **2.** Working email account.
- **3.** Canvas access.
- **4. Recommended (optional)**: Workbook with problems and solutions: *Essential Calculus Skills Practice Workbook with Full Solutions* (amazon link).

Method of Instruction / Philosophy:

You don't learn math by reading or listening to math; you learn math by **doing** math. Each session will be organized into some lecture and some hands-on problem solving. However, that is not enough – **you will need to spend at least 6-8 hours per week solving problems on your own**.

Attendance

Attendance is **required**. Students are expected to attend all classes, to be on time, and to stay for the entire class period. If a student decides not to continue with the course, it is the student's responsibility to officially drop the course.

Attendance counts for **4% of your grade** via in-class problems we will do together.

Homework:

There will be 5 homework assignments. They are intended as practice to gain proficiency and prep for exams. Similar problems will appear on quizzes and exams. Homework & in-class problems, and class notes, will be posted on Canvas under Modules → Week X for any particular week.

Exams/Quizzes:

There will be **3 quizzes**, each ~ 30 min long **at the start of class**. The quiz dates are shown in the Calendar. Quizzes will be **closed book**, **no notes**, **no calculators**, no electronic devices.

There will be **2 midterm exams**. The exam dates are shown in the Calendar. The midterm exams will be \sim 60 min long at the start of class. The midterms will be closed book, no calculators, no electronic devices, but one sheet of notes will be allowed.

The **final exam** will be on **Wed, Dec 11, 6:15 pm – 8:30pm.** The final exam will be **cumulative.** The final exam *may* be open book/notes, but **no calculators**, no electronic devices allowed.

MISSED MIDTERM/QUIZ POLICY: NO MAKE-UPS WILL BE GIVEN. The *lowest midterm* and *single lowest quiz* score will be replaced by 90% of the final exam score (if the latter is higher). For example, if your lowest midterm score is 50/80, and your final exam score is 140/160, then since $90\% \times (140/160) > 50/80$, your second midterm score will be "upgraded" to $(140/160) \times 0.9 = 63/80$. Same applies to the lowest quiz score.

Grading Breakdown:

	Quantity	Points Each	Total Points	%
Attendance	20	1	20	4%
Homework	5	8	40	8%
Quizzes	3	40	120	24%
Midterms	2	80	160	32%
Final	1	160	160	32%
TOTAL			500	100%

Grading Scale:

Your grade in the class will be determined by the total number of points you earn on quizzes, midterms, and the final. **There will be no "rounding up" – don't ask**.

If total poi	then grade:	
>=	485	A+
>=	465	Α
>=	450	A-
>=	435	B+
>=	415	В
>=	400	B-
>=	385	C+
>=	350	С
>=	300	D
<	300	F

Expectations of Students:

- Academic dishonesty will not be tolerated. If a student is found cheating on a
 quiz or exam, or violating other codes of academic integrity, he or she will
 receive a 0 score for the item in question. Repeated instances of cheating may
 lead to failing the course and further action. See the section on Academic
 Integrity in your current schedule of classes.
- 2. Showing your work:
 - a. You need to **show your work on quizzes and exams** to get full credit.
 - b. Your work needs to be **legible** if I can't decipher your handwriting, you will lose points. Neatness will also help correctness.
- Class conduct: Any student who is disruptive may be asked to leave class. A
 student who refuses to leave the room may be dropped from the class and
 reported for further action. Students are expected to silence and put away
 mobile phone, tablets, etc., and should refrain from eating during class.

Important
Registrar Dates:

LAST DAY TO ADD: Oct 5

LAST DAY TO **DROP** (full refund and no record of grade): **Oct 6**

LAST DAY TO DROP WITH A "W": Nov 15

Students with Disabilities:

For information or questions about eligibility, support services or accommodations to disability (physical or learning disability) see the contacts below:

- Disability Support Services (DSS): Student Services Building (408)864-8753
- Educational Diagnostic Center (EDC): Learning Center West 110; (408)864-8839.
- Special Education Division: (408)864-8407; https://www.deanza.edu/dsps/

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 realworld problems in optimization, related rates, and numerical approximation.

Calendar (Exam dates are set, unless otherwise noted ***)

WEEK OF:	Monday		Wednesday	
Sep 23	Intro	Diagnostic Exam (not graded)	Review : 1.1 – 1.5	Review 1.1 – 1.5
Sep 30	2.1	2.2	Quiz 1	2.2
				HW 1 Due
Oct 7	2.3	2.3	2.4	2.4
Oct 14	2.5	2.5	3.1	3.2
				HW 2 Due
Oct 21	MIDTERM 1	3.2	3.3	3.4
Oct 28	3.4	3.5	3.6	3.6
				HW 3 Due
Nov 4	Quiz 2 ***	3.7	3.8	3.9
Nov 11	Holiday – No Class		MIDTERM 2 ***	TBD
Nov 18	4.1	4.2	4.3	4.4
				HW 4 Due
Nov 25	4.5	4.6	4.7	4.8
Dec 2	Quiz 3	4.9	TBD	HW 5 Due
Dec 9	Review (optional)		FINAL EXAM 6:15-8:30PM	
*** - Dat	 may shift			

^{*** =} Dates may shift.

Final Words of Advice:

- 1. Attend all lectures; do the in-class problems. **Every point counts**.
- 2. Do all the homework problems. Quiz problems will reflect problems from past homework assignments.
- 3. Try your best to not fall behind. Sprint at the start, cruise to the finish.
- 4. Do not go into an exam cold. Do not try to wing it. <u>Study for exams by doing problems</u>, not just by reading or glancing over the book. **Check your work!** Never turn in an exam early if you have not checked your work.
- 5. **Be neat** when writing math. Neatness can save you! Do not be lazy and try to do all calculations on the same line, rather take the time (and extra paper) to re-write the equations if necessary.
- 6. Ask questions if you do not understand something in class. I am more than happy to stop and repeat and explain.
- 7. Come to office hours if you're lost. If you can't make my OH times, **email me to set up an appointment**.
- 8. **Please check your Canvas / email regularly**. I will send the homework, lecture notes, and announcement through Canvas. Note that these materials will also be posted on Canvas.
- 9. Math and Science Tutorial Center provides free tutoring services.

Student Learning Outcome(s):

- 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.

Office Hours:

M 05:00 PM 06:00 PM In-Person De Anza E37