

Meets:	Tue/Thu 06:30 PM-08:45 PM. Room: De Anza MLC 108
Instructor:	Prof. Vadim von Brzeski. Call me Prof. V. Email via Canvas is my preferred method of contact, but you can also email me directly at vonbrzeskivadim@deanza.edu – you can email me anytime – I will usually respond in a few hours, but definitely within 24 hrs.
Office Hours:	Tuesdays 5:00PM – 6:00PM , or by appointment. Location: PSME Village in S55 (Bldg. S5).
Course description:	Multivariable calculus, including partial derivatives, multiple integrals, vector calculus, and their applications.
Pre-requisites:	MATH 1C or MATH 1CH with a grade of C or better or equivalent. Good command of derivatives and integrals.
Materials:	Textbook is not required, but strongly recommended: <i>Calculus: Early Transcendentals</i>, 9th edition by James Stewart. Online access for around \$80 at Cengage. If you choose to get the hardcover version, make sure it is ISBN-978-1337613927 (there are different versions). Required: Working email account. Required: Canvas access. Check Course Page on Canvas regularly. It will contain lecture notes and homework assignments.
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. Assignments will be posted on Canvas under Modules → Homework . - HW will be graded for (a) neatness, (b) showing your work, (c) accuracy. However, only a few selected problems from each homework will be graded. HW is to be turned in ON PAPER, IN-CLASS, by 7:30PM on the DUE DATE. LATE homework will NOT BE ACCEPTED.
Exams/Quizzes:	There will be 3 quizzes , each ~ 35 min , 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 midterms , each roughly 70-90 min , at the start of class . The midterm dates are shown in the Calendar . Midterms will be closed book, no calculators , no electronic devices, but one 8.5" x 11" sheet (front + back) of notes will be allowed.

The **FINAL exam** will be on **Thursday Dec 10, from 6:15 PM to 9:00PM**. The final exam will be **cumulative**. The final exam will be closed book. Some notes will be allowed, but no calculators, no electronic devices are allowed. No makeup for the final will be given. **IF YOU CANNOT MAKE THE FINAL EXAM ON THIS DATE, DO NOT TAKE THIS COURSE.**

MISSED MIDTERM/QUIZ POLICY: NO MAKE-UPS WILL BE GIVEN. The *lowest (1) midterm and the lowest (1) 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 50/90, and your final exam score is 144/160, then since $90\% \times (144/160) > 50/90$, your second midterm score will be “upgraded” to $(144/160) \times 0.9 = 72.9/90$. Same applies to the lowest quiz score.

Grading
Breakdown:

	Quantity	Points Each	Total Points	%
Attendance	20	1	20	4%
Homework	5	10	50	10%
Quizzes	3	30	90	18%
Midterms	2	90	180	36%
Final	1	160	160	32%
TOTAL			500	100%

Grading Scale: Your grade in the class is determined by the total number of points you earn on attendance, HW, quizzes, midterms, and the final. **There will be no “rounding up” – don’t ask.**

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

Expectations of
Students:

1. **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 score of 0 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.
3. **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 4
 LAST DAY TO **DROP** (full refund and no record of grade): **Oct 4**
 LAST DAY TO DROP WITH A "W": Nov 13

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

- Apply analytic, graphical and numerical methods to study multivariable and vector-valued functions and their derivatives, using correct notation and mathematical precision.
- Use double, triple and line integrals in applications, including Green's Theorem, Stokes' Theorem and Divergence Theorem.
- Synthesize the key concepts of differential, integral and multivariate calculus.

Calendar

WEEK OF:	TUESDAY			THURSDAY	
Sep-21	Intro	14.1		14.2	14.3
Sep-28	14.3 HW 1 DUE	14.4		*** Quiz 1 *** 14.5	14.5
Oct-5	14.6	14.6 / 14.7		14.7	14.7 / 14.8
Oct-12	14.8 HW 2 DUE	15.1		*** Midterm 1 ***	15.1 / 15.2
Oct-19	15.2	15.2		15.3	15.3
Oct-26	15.4 HW 3 DUE	15.4		*** Quiz 2 *** 15.6	15.6
Nov-2	15.7	15.8		15.8 / 15.9	15.9
Nov-9	16.1 HW 4 DUE	16.2		*** Midterm 2 ***	
Nov-16	16.3	16.4		16.5	16.6
Nov-23	*** Quiz 3 *** 16.7	16.7		NO CLASS (THANKSGIVING)	
Nov-30	16.8 HW 5 DUE	16.8		16.9	TBD
Dec-7	Final Review (optional)			FINAL EXAM 6:15-9:00PM	

Final Words of Advice:

1. **Attend all lectures;** do the in-class problems. **Every point counts**
2. **Do not skip quizzes and exams.** With the above “missed quiz / exam policy”, there is no downside to showing up to an exam, even if you’re fully not prepared.
3. Do all the homework problems. Quiz problems will reflect problems from past homework assignments.
4. **This course moves fast.** Try your best not to fall behind. **Seek help as soon as possible.**
5. Ask questions if you do not understand something in class. **Raise your hand and I will call on you.** I am more than happy to stop and repeat and explain.
6. Do not go into an exam cold. Do not try to wing it. **Study for exams by doing problems,** not just by reading or glancing over the book. **Check your work!** Don’t turn in an exam early if you have not checked your work.
7. **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.
8. Come to office hours if you’re lost. If you can’t make my OH times, **email me to set up an appointment.**
9. Math and Science Tutorial Center provides free tutoring services:

<https://www.deanza.edu/studentssuccess/mstrc/>

10. Additional resources:

- a. De Anza’s version of open source Calculus textbook: [LibreTexts Calculus IV](#). Has detailed explanations, examples, practice problems. **Excellent resource.**
- b. [Paul’s Online Notes: Calculus 3](#). Explanations, extra problems, and detailed solutions.
- c. Desmos Graphing Tool: [2-D](#) and [3-D](#).
- d. [CalcPlot3D](#) Graphing app.
- e. [Symbolab](#): Symbolic calculator for derivatives, integrals, etc.
- f. YouTube Video Courses:
 - i. [Calculus 3 w/ Professor V.](#) (no relation!) – follows this course & textbook closely. **If you miss a lecture, this is a good video to watch!**
 - ii. [Vector Calculus Course \(Dr. Trefor Bazett\)](#) – good general overview of concepts.
- g. Another open source textbook: <https://openstax.org/details/books/calculus-volume-3>

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Office Hours:

5:00 PM - 6:00 PM

PSME Village in S55 T

2:30 PM - 3:30 PM

S54A MESA Center W