

MATH 20E: VECTOR CALCULUS

EDDIE AAMARI, DEPARTMENT OF MATHEMATICS, UCSD, WINTER 2018

Instructor.

Professor: Eddie Aamari
Email: eaamari@ucsd.edu
Office: AP&M 5880A

Lectures. Tuesday and Thursday, 3:30pm-4:50pm, PCYNH 106

Textbook. *Vector Calculus, 6th Edition, Mardsen and Tromba*

Content. Change of variable in multiple integrals, Jacobian, Line integrals, Green's theorem. Vector fields, gradient fields, divergence, curl. Spherical/cylindrical coordinates. Taylor series in several variables. Surface integrals, Stokes' theorem. Gauss' theorem. Conservative fields.

Office Hours.

| <i>Name</i> | <i>Email</i> | <i>Office Hours</i> | <i>Office</i> |
|--------------------------|-------------------|---------------------|---------------|
| <i>Aamari, Eddie</i> | eaamari@ucsd.edu | Tuesday 11am-12pm | AP&M 5880A |
| | | Thursday 10am-11am | AP&M 5880A |
| <i>Tedeschi, Nicolas</i> | njtedesc@ucsd.edu | Monday 1pm-3pm | AP&M 5412 |
| | | Tuesday 12pm-2pm | AP&M 5412 |
| <i>Batra, Ankit</i> | a5batra@ucsd.edu | Tuesday 5pm-7pm | AP&M 2313 |

Course Webpage. All the class informations (homework, due dates, solutions) will be available on the [instructor's webpage](#).

Discussion Board. The [Piazza forum](#) for our class where questions can be posted and answered. It is a very helpful resource!

Homework. Homework is a very important part of the course and you should work carefully on every assignment and try your best to complete every problem. The homework assignments will be announced on the [course webpage](#) and should be completed by the indicated due date.

- Homework is due weekly on Thursday's lecture.
- Late assignments will not be accepted.
- Your worst homework grade will be dropped.
- Randomly selected problems on the assignment will be graded.

To assist your grader, you should keep all problems in the same order as the assignment list. If a problem is omitted, it should still appear in the correct order. All work must be on full-sized notebook paper and all pages must be stapled together.

- The upper right corner of each assignment must include:
 - Your full name (Last name, First name)
 - Your PID
 - Your discussion section
 - Homework assignment number

Homework will be handed back in your discussion section.

- No homework re-grading will be allowed after the section ends. This means that if you come back after you went out the room, your grade is fixed and your homework will not be regraded. Complaints/reclamation during the section will be considered with concern.

Grading. Your average in this class will be determined as follows.

| | | | | | |
|------------|-----|------------|------------|-----|--------------|
| Formula 1: | 20% | Homework | Formula 2: | 20% | Homework |
| | 20% | Midterm 1 | | 20% | Best Midterm |
| | 20% | Midterm 2 | | 60% | Final Exam |
| | 40% | Final Exam | | | |

Whichever formula gives you the better result will be used

Your worst homework grade will be dropped for computing your final *Homework* score.

The grading scheme will be curved and scaled to the best student in class.

Academic Integrity. Group work and discussions are allowed and encouraged in this course, but copying or letting others copy your work plagiarism. Cases of academic dishonesty will be reported to the Academic Integrity Office. Penalties for violating the policy vary depending on the circumstances but can include failure in the course or suspension from the university. UCSD's integrity policy can be found [here](#).