Instructor: Hansol Hong
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Prerequisite. Knowledge of differential (MATH 10a) and integral (MATH 10b) calculus.

Syllabus. The course will cover the following sections of the text: Sections 9.1-9.7, 10.1-10.3, 11.1-11.8, 12.1-12.4, 12.6-12.8, and 13.1-13.8. (tentative)

Exams. There will be two midterm exams and a final exam.

- Midterm exam 1: 2nd week of October (tentatively Oct. 9 Tues)
- Midterm exam 2: 2md week of November (tentatively Nov. 6 Tues)
- Final exam: (date is determined by the registrar; please check their website)

All the exams will be closed book: the use of books or notes is not allowed. Calculators are not allowed during exams. Make-up exam will only be allowed in the case of a documented medical or other emergencies. Any conflicts with a midterm exam must be made known to the instructor at least one week before the exam. Final exam is comprehensive.

Grades. Your grade in the course will be based on the following:

1. Homework (15% of your grade).
   - Homework assignments will be collected once a week.
   - No late homeworks will be accepted.
   - Two lowest homework grades will be dropped.
   - We encourage you to discuss homework problems with your classmates, but you must write up your own solutions. You may not use any solution manuals.

2. Two midterm exams (each 25% of your grade).
3. Final exam (35% of your grade).

LATTE. All course materials for Math 20a will be available online on LATTE. Log in at http://latte.brandeis.edu using your Unet username and password.

Office hours. You are encouraged to use your instructor’s office hours whenever you have questions about the course material. (Office hours: to be announced)
Students with disabilities. If you are a student who needs academic accommodations because of a documented disability you should contact the instructor and present your letter of accommodation as soon as possible. If you have questions about documenting a disability or requesting academic accommodations you should contact Beth Rodgers-Kay in the Office of Academic Services at brodgers@brandeis.edu. Letters of accommodations should be presented at the start of the semester to ensure provision of accommodations. Accommodations cannot be granted retroactively.

Academic Integrity. You are expected to follow the University’s policy on academic integrity, which is distributed annually as Section 4 of the Rights and Responsibilities Handbook (see http://www.brandeis.edu/studentaffairs/srcs/rr/index.html). Instances of alleged dishonesty will be forwarded to the Department of Student Development and Conduct for possible referral to the Student Judicial System. Potential sanctions include failure in the course and suspension from the University. If you have any questions about how these policies apply to your conduct in Math 20a, please ask.

Learning Goals for Math 20a. The learning goals for Math 20a include the following. Students will:

- Learn what vectors are and how to perform dot and cross product.
- Understand the role vectors play in defining lines and planes.
- Extend the definition of the derivative and integral to vector functions.
- Define and compute partial derivatives.
- Learn how to write level curves and find tangent planes.
- Understand and compute directional derivatives.
- Define and determine differential and gradient of a multivariable function.
- Compute double and triple integrals.
- Learn about vector fields and how to compute line integrals.
- Define conservative vector fields and understand path independence.
- Learn how to apply Green’s theorem to solve integration problems.