2010/2011. TERM 1. MATH 217:101: MULTIVARIABLE AND VECTOR CALCULUS

Instructor: Young-Heon Kim.
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Course Webpage: All important announcements, homework assignments, and additional information about the course will be posted on the course website:
www.math.ubc.ca/˜yhkim/yhkim-home/teaching.html

Course schedule: Tue, Th 09:30–11:00 & Fri 09:00–10:00 at Buchanan A103
Office hours: TBA. Or by appointment.

Textbook: *Multivariable Calculus* 6th edition by James Stewart

Course description: The goal of this course is to generalize the concepts of differentiation and integration from the one-variable setting to functions of several variables. We will cover material from Chapters 13 - 17 of the text with some omissions and some additional material. A tentative schedule is as follows:

- Chapter 13: Vectors and the geometry of space (1 week)
- Chapter 14: Vector functions (1 week)
- Chapter 15: Partial derivatives (3 weeks)
- Chapter 16: Multiple Integrals (3 weeks)
- Chapter 17: Vector calculus (3.5 weeks)

Evaluation skim:

- Homework assignments 10%
- Midterm 1: 20%
- Midterm 2: 20%
- Final 50%

Homework assignment:

- Homework will be collected at the beginning of lecture **each Friday** starting September 17. A problem set, which contains both suggested practice problems and problems to hand in, will be posted on the course website every week. Stay tuned.
- **Late homework will not be accepted in any case.** If you are unable to attend lecture on a certain Friday, submit the homework in an earlier lecture. A missed homework will result in 0 mark. Two lowest homework grades will be dropped in computing the grade.
- Your homework should be written in a **clear** manner so that the grader can understand **easily** what you are doing. Also it should be hand written **neatly**. **Unreadable or very hard to read homework may get zero or very low mark.**
- You are encouraged to discuss the homework with other students, but you must produce and write the solutions on your own.
- It is probable that only a subset of those problems turned in would be graded, and you will not be informed (in advance) which ones these are. *For example, if your homework does not contain any of the problems to be graded (which will be decided after the deadline), you will get zero mark.* So, it would be better for you to do all the problems to be handed in.

Exams: There will be two midterms and a final exam in this course.

- The midterms will be held during class hours on **October 5 (Tuesday) and November 9 (Tuesday)**.
- The date of the final exam is yet to be declared. *Do not make any travel plans until the exam schedule has been announced.*
- Students will be required to bring **Photo ID** to all tests and exams.

- Calculators, books, formula sheets or aids of any kind will **NOT** be allowed in midterms or in the final.
- Missing a midterm normally results in a mark of 0. Exceptions may be granted **ONLY** with prior consent of the instructor, and with official documentation supporting the student's reason for missing the exam. In case of a medical emergency, the instructor must be notified within 48 hours of the missed test, and presented with a doctor's note immediately upon the students return to UBC. A physician's note **should** specifically state that the student was medically unfit to write the missed exam **on that specific day**.
- Complaint of the mark on the midterm exams should be made right at the time you get the exam back. Later claims will **NOT** be considered.

Grading policy: For computational problems, to earn lots of credit, you have to get the right answer with proper set-up of the calculation. In many cases (especially for the easier problems), about half the points will be given for setting up the calculation *properly* and about half for computing the numerical answer *correctly*. For more difficult problems, more percentage will be given for properly setting-up the calculation. **You may loose most (sometimes, all) of points for setting up the calculation incorrectly, even if the subsequent computations are correct.** Also, you may loose half the points for not finding the correct final answer, even if the initial set-up is correct.

Schedule. The term starts on Tuesday, Sep 07, 2010 and end on Friday, Dec 03, 2010.

- September 7 (Tuesday). No class. University orientation.
- September 9 (Thursday). First class
- September 21, 2010. Last day to withdraw without a W standing
- **October 5 , 2010 (Tuesday): Midterm 1 in class.**
- October 11, 2010 (Monday): Thanksgiving Day. University closed.
- October 15, 2010. Last day to withdraw with a W standing (course cannot be dropped after this date)
- **November 9, 2010 (Tuesday). Midterm 2 in class.**
- November 11, 2010 (Thursday): Remembrance Day. University closed.
- December 3, 2010 (Friday): Last day of class.
- TBA: Final Exam. Term 1 examinations (day and evening classes) will be held in the period December 7 to 21 inclusive. Saturdays are included in the exam schedule.

Other resources:

- There is a TA for this course who is in charge of grading the homework assignments. The TA's contact info and office hours will be posted on the course website once they are available.
- Please take advantage of the drop-in tutorials. The schedule will be available on-line at http://www.math.ubc.ca/Ugrad/ugradTutorials.shtml. Drop-in tutorials begin during the second week of term and will be located in Auditorium Annex A, Rooms 143-146. There will be TAs working from 9 a.m. to 4 p.m. on Mondays to Thursdays, and 9 a.m. to 3 p.m. on Fridays.
- The Math Club (http://www.ubcmathclub.org/) sells packages of old exams with solutions. They do not do this for Math 217, but they have Math 200 and 317 whose combined syllabi have a large overlap with ours. Keep in mind however that some topics are covered more in-depth in this two-term sequence than in our course.

IMPORTANT! Academic Integrity/Honesty. Please see

- http://www.science.ubc.ca/sites/science.ubc.ca/files/faculty/teaching/sep05acadhonesty.pdf

and also

- Student Conduct and Discipline:
  http://www.students.ubc.ca/calendar/index.cfm?tree=3,54,0,0