# Math 13 Spring 10
## Syllabus

| MA13 - Multivariable Calculus | Spring 2010 |
|---|---|
| Meeting Times | MWF 11:00-11:10am |
| | Tu 1:00-1:50pm |
| Location | Seeley Mudd 205 |
| Instructor | Ben Hutz |
| E-mail | bhutz@amherst.edu |
| Office | Seeley Mudd 502 |
| Office Hours | Mo: 1-2:30pm, Tu: 2-3:30pm, Fr: 1-2:30pm |
| Text | Multivariable Calculus, 6rd Edition, James Stewart |

**Overview.** Elementary vector calculus; introduction to partial derivatives; extrema of functions of several variables; multiple integrals in two and three dimensions; line integrals in the plane; Green's theorem.

**Evaluation.** The assessments in this course will be weekly homework assignments, 1 group project, 3 in-class exams, and a final. Specifically, your grade is determined by

- 5% Group Projects
- 20% Homework/Weekly Quiz (%10 each)
- 50% Three in-class exams
- 25% Final Exam

Grades in this course will be curved.

| Exams | | |
|---|---|---|
| Exam 1 | Tuesday 2/23 | TBD |
| Exam 2 | Tuesday 3/30 | TBD |
| Exam 3 | Tuesday 4/27 | TBD |
| Final Exam | TBD | Cumulative |

**Statement of Intellectual Responsibility.** It is expected that you will follow the Statement of Intellectual Responsibility of Amherst College as it pertains to this course. In particular, the assignments that you turn in should be your own work (or your group's work). In this case of the weekly homework assignments, this does not preclude seeking aid from other resources and students, but that aid should be in the form of learning the material, NOT rote copying of solutions. In the case of the group projects, if there is more than one group working on the same project, discussion between those groups is not permitted beyond the basic clarification of the statement of the problem. The exams will be conducted in class without the aid of outside resources or communication among students. For more details on the Amherst College Honor Code see `http://www.amherst.edu/~dos/conduct/`

**Class Attendance.** Although class attendance is not a specified percentage of your grade, I highly recommend attending. If you do miss class, you are responsible for the material that was covered. Getting Help The Dean of Students Office can arrange for peer tutoring. Information can be found at `http://www.amherst.edu/~dos/acadsupport.html`

Please come see me during my office hours! If you have a conflict and cannot make my office hours, please email me and we can set up an appointment for another time.

**Homework.** All assignments are from Calculus, 6th Edition by Stewart. The assignments represent the minimal number of problems that you should do to understand the material. You are strongly encouraged to do as many problems from the book as you have time to devote to calculus.

Homework will be collected **<u>at the start of</u>** class and will be followed by a 1-2 question quiz on the same material. Missed quizzes cannot be rescheduled, if you miss a quiz for illness (or other approved reason) it will not count in your grade. **Homework turned in after the start of class will receive <u>50% credit</u>**. While you are strongly encouraged to do all of the problems on your own, you may work with two or three other students on the problem sets. If you do work with someone else you should indicate that in a note on the top of your assignment.

Here are a few guidelines for the presentation of your homework.

- Your writing must be clear and legible.
- Your homework should be well-written, using complete sentences to justify your results where necessary. A list of answers without explanation is not acceptable.
- Write your solutions so that you could hand them to another student in the class and he/she could understand your explanation.
- If you write in pen, there should be no scratch-outs.
- Do not turn in paper torn from a spiral notebook with ragged edges.
- All pages should have your name on them and the entire assignment should be stapled or similarly bound.
- Clearly label each problem and solution.

The assignments can be time-consuming, so you should definitely plan to start early and to take advantage of my office hours and other resources.

**Suggestions for Reading a Math Book.** Reading mathematics is an acquired skill. As the term goes on, you should find that reading the text becomes easier and more rewarding. Here are a few suggestions.

- Expect to spend 30 to 60 minutes for each section. You may not completely understand everything in the section, but the class meetings will be much more meaningful and the homework will be much easier for you if you have spent time with the reading.
- Expect to re-read. A mathematics text is not light reading, so you should expect that it will take several passes through a section before you absorb the material. After we have discussed a section in class, go back and re-read the section – Many points will be much clearer.
- Be sure you understand the keywords. If you are unsure on some of the terminology, use the index to find where a term is defined and look it up!
- Read with a pencil and paper in hand. You learn mathematics by doing. When the text asks you to check the calculations and graphs, do it!
- Reflect on what you have read. Every so often, stop and think about what you have read, how it fits in with past material, and where you think it is going.

**Getting Help.** The Moss Quantitative Center provides math help. It is located in 202 Merrill Science Center and you can find the math hours at `http://www.amherst.edu/~qcenter/`.

The Dean of Students Office can arrange for peer tutoring. Information can be found at `http://www.amherst.edu/~dos/acadsupport.html`.

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