Math 255-001 Winter 2012

Course Information
Multivariable Calculus • Prof. Anthony Bloch

Essential Info
- MTWF 10:00–11.00am, Room: 316 Dennison
- Instructor: Anthony Bloch (abloch@umich.edu)
- Office Hours: M 3.10-4 TW 11.10-12
- Website: <http://www.math.lsa.umich.edu/abloch/255/>

Coursework
- WrittenHW; (30% of grade)
- Midterm: Wed 2/1 (20% of grade) Uniform exam time 6-8, room: 140 Lorch.
- Midterm: Wed 3/21 (20% of grade) Uniform exam time 6-8, room 1324 East Hall.
- Final: Thurs 4/19 10.30–12.30 EH 1324 (30% of grade)

Class participation may, in some circumstances, raise or lower the final grade determined from these percentages.

Uniform exam dates are absolutely firm. All students enrolled must plan to take exams at their scheduled times. Travel plans will not be considered an excuse to take an examination on a different date. Calculators are not allowed in the exam.

Description
Math 255 is part of the applied honors calculus sequence for engineering and science concentrators. Applications and concepts receive equal treatment. Theorems are stated precisely and are derived, but technical details are omitted. Examples are given to illustrate the theory. Critical thinking and class participation are encouraged. The goal is to provide students with a solid background needed for subsequent courses in mathematics, engineering, or science. The major content will cover analytic geometry of lines and planes using vector notation, parametric representation of curves and surfaces, multivariable calculus, line surface and volume integrals, vector fields, Greens theorem, Stokes theorem, divergence theorem, applications (e.g. electromagnetic fields, fluid dynamics). Software: MAPLE or similar.

Course Content

Homework
Homework will be assigned and collected before the beginning of the class. Student may work together in groups and discuss the problems with each other, but each student should write up and submit their own set of solutions. The homework should be written neatly. Please staple the sheets together.

Academic honesty policy
All assignments turned in for the course must be your own work. Copying from other class member or other sources is not acceptable.

Tentative Schedule:
- Week 1: Classes begin 1/4. 11.1, 11.2
- Week 2: begins 1/9: 11.3, 11.4, 13.1
- Week 3: MLK 1/16, 13.2–13.4 HW1 due Wed 1/18
- Week 4: HW2 due Tue 1/24, HW3 due Fri 1/27, 13.5-7, 14.1
- Week 5: Exam Feb 1, 14.2-4, Review, HW4 due Friday Feb 3
- Week 6: 15.1-15.5 HW5 due Monday Feb 13
- Week 7: 15.7-15.8, 16.1 HW 7 due Wed Feb 22
- Week 8: Spring Break
- Week 9: 16.2–16.5
- Week 10: 16.6–17.1 HW 8 due Mon Mar 12 HW 8 due Fri Mar 16
- Week 11: 17.1-17.3 HW 9
- Week 12: 17.4-17.6 HW 10
Week 13: 17.7-17.9
Final week: Review, 10a, 11 due.