

Stanford University Mathematics Department
Math 52H, Winter 2009

General:

Math. 52H is designed to give a rigorous freshman introduction to multilinear algebra, multivariable integral calculus and submanifolds of Euclidean space.

Course Content:

A tentative schedule of the topics to be covered in the course (basically chapters 7 and 8 of the Shifrin text, plus some additional real analysis) can be found at <http://www.stanford.edu/class/math52h/52h-schedule.pdf>

Lectures:

Mon, Tue, Wed, Thu 2:15–3:05 in room 380–380W, beginning Tuesday January 6 Class meets at the same time and place on Fridays with the TA for problem/review session

Text:

Shifrin: Multivariable Mathematics—available in the Bookstore and is a required text for Math 52H.

Web-page:

<http://www.stanford.edu/class/math52h> (should also be accessible from <http://math52h.stanford.edu>)

All homework and course announcements (including for example sample solutions to homework problems and exams) will be accessed via this page.

Homework:

Homework will be assigned on the web-page each Friday, and will be due on the following Friday. In all there will be 10 homework assignments, the first being due this Friday January 9 at the start of the TA section. The first homework is currently accessible from the class web page.

Note: The homework problems form an integral part of the course; they are easily the most reliable check of your progress in assimilating the material in a manner which is sufficiently deep to allow you to solve problems which are at least one level removed from routine application of definitions and formulae. While it is quite O.K. (and even encouraged) for you to discuss the problems in general terms with your peers, it is expected that what you hand in is your own work, and not a joint project of several people; i.e. you may NOT systematically work together with others on the homework problems, and such behavior would constitute a violation of the Honor Code

Exams:

Mid-term Exam 1: Wednesday, January 28, 7–8:15pm (make-up time 8:45–10:00pm same evening)

Mid-term Exam 2: Wednesday, February 25, 7–8:15pm (make-up time 8:45–10:00pm same evening)

Final Examination: Monday, March 16, 7:00–10:00pm

The make-up time for the mid-terms is available only for students who have a clash with an IHUM section or some other class. Other make-up times for the mid-terms will be available only in exceptional circumstances AND BY PRIOR ARRANGEMENT; if you think such exceptional circumstances apply to you, you should email the instructor (lms@math.stanford.edu) immediately, setting out the details of why you cannot take one or both of the mid-term exams at the scheduled time. The final examination time (7:00–10:00pm on Monday March 16) is officially scheduled by Stanford, and cannot be varied.

Announcements:

You should routinely check the "current announcements" on the home-page, since this provides you with the latest information relating to any aspects of the course (e.g. corrections to homework, arrangements for mid-terms, notes or corrections concerning material covered in the lectures, etc.).

Grading:

Mid-term 1: 20%

Mid-term 2: 20%

Homework: 20%

Final Examination: 40%

Honor Code:

Please be sure you are aware of the requirements of the Stanford Honor Code and your responsibilities under it.