Course Information

Instructor: Gigliola Staffilani, 2–246, 3–4981, gigliola@math.mit.edu, office hours: T 12:15-1:15 and F 12:45-1:45.

Course Administrator Nick Sheridan, 2–492, 3–4093 nicks@math.mit.edu, office hours: TBA

Web pages: http://math.mit.edu/18.02 and Stellar http://

Required Text: Simmons, Calculus with Analytic Geometry, 2nd edition. Also: 18.02 Supplementary Notes and Problems, download zip file from stellar, or get a copy from Copy Tech (11-004) for around 13 dollars, and Lecture Notes typed by the instructor and posted on class home page.

Lectures: 54–100, TR 11:00–12:00, F 2:00–3:00.

Recitations: M & W. Please see Stellar for more details. Recitation meetings begin on Wednesday of the first week.

Problem Sets: Eight, given out Thursdays, due the following Thursday, no later than 12:45 PM in 2–106. Late problem sets are not accepted, however the lowest problem set score will be dropped. At the top of every of each assignment should appear

1. Your name.
2. Your recitation leader's last name.
3. Your recitation time.
4. Either the text “Sources consulted: none” or a list of all sources consulted other than the main textbook, supplementary notes, and your own notes from lecture and recitation. This is required. (Examples of things that should be listed if used: office hours, names of study group partners, OCW archive, Wikipedia, Piazza etc.)

Cooperation policy: You should not expect to be able to solve every single problem on your own; instead you are encouraged to discuss questions with each other or to come to office hours. If you meet with a study group, you may find it helpful to do as many problems as you can on your own beforehand. But write-ups must be done independently. (In practice, this means that it is OK for other people to explain their solutions to you, but you must not be looking at other peoples solutions as you write your own.) Use examples in the book as a model for the level of detail expected. Write in complete sentences whenever reasonable.

Final Exam: Tuesday, May 22, 1.30 to 4.30pm in Johnson Track.

Quizzes: R 02/23, R 03/15, R 4/19, R 5/10. All quizzes are 50 minutes long and will be held during class time in Walker Memorial. (See schedule).
**Make-Up Quizzes:** Under certain circumstances, a make-up quiz may be taken after the date of the regular quiz. Make-ups for missed quizzes are permitted only with a medical excuse or prior arrangement (at least 24 hours prior). Send email to course administrator and to your recitation leader to arrange to take a make-up. Make-ups for failed quizzes can boost your midterm grade only up to the minimum passing grade, which will be announced; students who fail a quiz will be notified of this opportunity.

**Grading:** Approximate weighting: homework 25%; quizzes 45%; final 30.

**Questions/Problems:** Concerns about homework, grading, exams: first check the class home page then go see your recitation instructor. If you anticipate missing a homework or midterm (e.g. for a varsity sport) then please contact your recitation leader (the sooner the better). Similarly contact your recitation leader if you miss a homework or midterm due to illness. You may be required to obtain a supporting letter from Student Support Services.

**Syllabus:** Calculus of several variables. Vector algebra in 3-space, determinants, matrices. Vector-valued functions of one variable, space motion. Scalar functions of several variables: partial differentiation, gradient, optimization techniques. Double integrals and line integrals in the plane; exact differentials and conservative fields; Green’s theorem and applications, triple integrals, line and surface integrals in space, Divergence theorem, Stokes’ theorem; applications.