COURSE INFORMATION

[218x723]Math 226 Calculus I Fall 2004

Instructor: Joseph Gubeladze
TA: Alexandra Han
- Lecture: MWF 9:10-10:00am Th 8:10-9:00am Room: TH 210
- Office: TH 941
- Phone: (415) 338 7722
- e-mail: soso@math.sfsu.edu


Prerequisite: Grade C or better in Math 109. Student who have not taken Math 109 must get a satisfactory score on the on-line pretest (accessible from the department home page http://math.sfsu.edu). Students with a marginal passing score (7-9 out of 12) should simultaneously enroll in SCI 226.

Office Hours:
Joseph Gubeladze: We 1:00 – 3:15pm, TH 941
Alexandra Han: ??

Grading:
- Two midterms – 20% each
- Final – 30%
- Homework (assigned each week on Fridays) – 25%
- Attendance – 5%
- Make-up exams will be given for serious documented reasons, by prior arrangement.

Tentative Exam Dates:
- 1st Midterm – October 1
- 2nd Midterm – November 1
- Final – December 15

I will post practice problems before each midterm. The exams will not be comprehensive – they will be related only to the corresponding part of the course.

Course Description
Calculus I – differential calculus – studies functions of one variable and, namely, their global behavior based on local data. The notion of instantaneous rate of change of a variable magnitude is formalized in the concept of the derivative of a function.
The typical applications to the physical world include velocity, acceleration, rate of growth of population, etc. Another important application is *optimization*: for a given function of one variable what values of the variable maximize or minimize the function? Towards the end of the course we will present a short introduction to *integral calculus* which is the subject of Calculus II. This is the inverse to Calculus I – *differential calculus*. In integral calculus one learns how to compute various areas, volumes, reconstruct functions out of its initial data and derivative. The two aspects of calculus together with their interplay, nowadays a part of the standard curriculum, is an all-time apex of all mathematics with profound implications for the contemporary technological world.

- In the first three lectures we will review pre-calc (Ch. 1) and then will go on with Chapter 2 (2.1 as a prelude to 2.2, 2.2, 2.3, 2.5, 2.6, 2.7, 2.8).
- In the second part we will cover Chapter 3 (3.1, 3.2, 3.4, 3.5, 3.6, 3.7, 3.8, 3.10).
- In the final part we will cover Chapter 4 (4.1,4.2, 4.3, 4.4, 4.5, 4.7) and the first three sections of Chapter 5 (5.1, 5.2, 5.3).
- TA Alexandra Han will lead the Thursday discussion which will be devoted to going over homework problems and, occasionally, presenting new material. Attendance of the discussion section is mandatory.

**Homework**

You will be assigned homework problems every week on Fridays which will be due at the start of the lecture on the following Friday. At the end of the semester the two homeworks with the lowest grade will be dropped and will not be considered for your letter grade. I am expecting that you attempt to solve all problems. All homework is expected to be an individual effort. You may discuss homework problems with your classmates and with me, but the writeups must be done individually and in your own words.

**Policy**

- Please be punctual, not be late in class; cell phones must be turned off in class.
- No late homework will be accepted.
- If a schedule conflict does not allow you to come to my office hours please feel free to e-mail me and make an appointment.
- All up-to-date information (homework assignments, solutions, announcements) will be posted on the course page:
  

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**FROM THE MATHEMATICS DEPARTMENT**

Every semester about 4,000 students enroll in mathematics courses ranging from Algebra I to advanced graduate theory. Your teacher will explain all the procedures
for your class, but some rules apply to all classes. This note will explain the most important University rules, the ones that cause students the most trouble each semester.

Here is a short version of the University calendar for Fall, 2004. Note that the Mathematics Department strictly enforces the deadlines for CR/NCR grading and withdrawals.

- September 10 Last day to add classes.
- September 22 Last day to drop classes online.
- October 20 Last day to select CR/NCR grading November.
- 15 Last day to withdraw from a course.
- November 25-28 Thanksgiving Break December.
- 1 Advising Day. Classes cancelled.
- December 10 Last day of instruction.
- December 11-17 Final exams.
- January 3 Grades due from instructors.

**CR/NCR Grading**

Most Mathematics classes allow CR/NCR grading, but many majors—including Mathematics—do not count CR/NCR grades towards the major. Mathematics majors should not take their Mathematics classes CR/NCR. All other majors should check with their academic advisors before deciding to take a Mathematics class CR/NCR.

If—after checking with your advisor—you want to apply for CR/NCR grading, you must log onto the web site www.sfsu.edu/student and sign up for CR/NCR grading before the October 20 deadline. Your instructor will not pass out a CR/NCR sheet in class.

**Incompletes.**

The Incomplete grade (I) is assigned only to students doing satisfactory work until the last few weeks of a course, when events beyond the students’ control prevented them from completing the course. If this happens to you, discuss with your instructor the possibility of taking an Incomplete rather than withdrawing from a class that you cannot finish.

**Late and Retroactive Withdrawals.**

Petitions for withdrawal from a class after the November 15 deadline, either before the end of the semester (late withdrawal) or after the semester ends (retroactive withdrawal) must be justified by events that occurred after the deadline. In general, only petitions for withdrawal from all courses will be approved. Late withdrawal from your math course alone is usually not approved.

**Students with Disabilities**

Students with disabilities needing reasonable accommodations must bring an official written request to their instructor from the Disability Programs and Resource
Center (Student Services Building, Room 110, (415) 338-1041, drc@sfsu.edu). The DPRC is available to facilitate the reasonable accommodations process.

**Religious Holidays**

Reasonable accommodations will be made for you to observe religious holidays when such observances require you to be absent from class activities. It is your responsibility to inform the instructor during the first two weeks of class, in writing, about such holidays.