

# MATH 21-112 Calculus II

## Spring 2006

**Course:** 21-112

**Title:** Calculus II

**Course Description:** Topics include indefinite integral, definite integral and applications, techniques of integration, trigonometric functions, functions of several variables, partial derivatives, maximum-minimum problems, Lagrange multipliers, geometric series, Newton's method and applications.

**Prerequisite:** 21-111 Calculus I.

**Textbook:** Goldstein, Lay and Schneider, *Brief Calculus and Its Applications*: Tenth edition, Prentice Hall, 2001. Chapters 6 – 8.

**Instructor:** Prof. Zhaosong Lu, WEH 7124, (412) 268-6207, zhaolu@andrew.cmu.edu

- **Lecture:** MWF 2:30pm - 3:20pm MM A14
- **Office hours:** MWF 11:00am - 12:00pm WEH 7124

### Teaching Assistants:

Aditya Raj Kanodia, akanodia@andrew.cmu.edu

- **Office/hours:** MW 4:30pm - 5:30pm WEH 6215
- **Recitation (A):** TuTh 12:30pm - 1:20pm PH 226C

Jamie Hyung Woo Choi, hwchoi@andrew.cmu.edu

- **Office/hours:** TuTh 2:30pm - 3:30pm WEH 6215
- **Recitation (B):** TuTh 1:30pm - 2:20pm PH A20

**Attendance:** Lecture and recitation attendance is required. In the event that you miss a class, it is your responsibility to get the material from another student. It is absolutely vital that you read the assigned material in advance so that you may be well prepared to understand the concepts

when presented in class or to ask focused questions about concepts that are not yet clear to you.

**Homework:** Homework assignments will be announced in lectures and will also be posted on the course blackboard. They should be completed by the indicated due dates. You must include the recitation section letter in your homework. Homework will be collected in the recitation on the due dates will be returned to you during recitation. Late homework submission will not be accepted. If you are unable to submit your homework in the recitation for some understandable reasons, you should contact your teaching assistant in advance to see if you are allowed to submit it before the due date. The homework assignments will comprise a substantial portion of your grade and you will be expected to take them seriously and to write them up neatly. Zero point will be given for those who copy or duplicate the others' homework or work. Please make every effort to complete all the assigned exercises. The assigned exercises will be also used as a resource for constructing your exams.

**Quizzes:** Quizzes will be given during the lecture and recitation from time to time. Each quiz usually consists of two simple questions. Each quiz will be given on a randomly selected date. You are fully responsible for any missing quiz. To ensure that you take all quizzes, you should attend all lectures and recitations. The total quizzes will be counted as **5%** of the course grade.

**Exams:** There will be three (3) midterm exams as well as one (1) final exam which is scheduled by the University. The midterm exams are tentatively scheduled in lectures on February 17th, March 22nd and April 19th, respectively. Makeup exams may be given only for appropriately documented reasons of illness, family emergency, religious obligation, or participation in a University sponsored event. Notes (or books) or calculators will be disallowed during the exams.

**Grading Policy:** Your course grade will be based on the following:

- 20% Homework
- 5% Quiz
- 15% Exam 1, 15% Exam 2, 15% Exam 3, 30% Final Exam.

**Academic Dishonesty:** Academic dishonesty is considered a serious offense at Carnegie Mellon University. Students caught cheating will face an administrative sanction which may include failure of the course or even expulsion from the university.