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Math 121: Calculus I

Fall 2004

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Office Hours: 10:00-10:50 am M-F or by appointment.

Textbook: Calculus, by Barr and Neuhauser, Prentice Hall.

Course Description: Calculus provides powerful tools for modeling real world problems. This course will provide a thorough disposition of calculus I. Students will have a deep understanding of the materials, not only computations. Many proofs will be discussed in class that will give students some ideas about how the system of calculus is built up. We will stress concepts and theorems. It is very important that the student spend time carefully reading the text, with special attention being paid to the definitions and theorems.

The course covers Chapter 2-5 with brief introduction to Chapter 1. Chapter 2 introduces limit, which is the base of calculus. Chapter 3 and 5 introduce derivative and integral, which are the main concepts of calculus. The bridge between derivative and integral, which is the high light of this course, is so-called the Fundamental Theorem of Calculus, which unites calculus. Chapter 3 discusses applications of derivatives.

There are two manifolds that distinct this course with Applied Calculus Math 115. One is that this course includes trigonometric functions. The other is that it also emphasizes on strong understanding of the fundamental concepts of calculus, not just facts.

Prerequisites and Credit Issues: You should have a good pre-calculus knowledge, for example, see the sections in Chapter 1. You can not earn credit for both Math 115 and Math 121.

Attendance: You should attend all the classes. I will not formally take attendance. However, small pop quizzes will be taken occasionally when I think it is appropriate. Or in-class exercises will be collected. If you are ill or will be missing class for a good reason, let me know before the class or classes you will miss (for example, by email). If you miss too many classes, say six, I will suggest to the dean of the college that you be removed from the list.

Homework: I will collect homework at daily base. Usually each homework assignment has 2-3 problems. These problems will be graded. Extra problems will also be assigned but will not be graded. However, you should do them all, because 2-3 problems usually are not enough as practice. Some of these problems will appear in pop quizzes and tests.

Your work should be clean and correct, with detailed explanations. A simple answer is not enough and I won't grade a work that I can not read.

Projects/Modules: There will be 5-6 projects that will allow you to explore more from what you have learned. The work you turn in should be typed, clear, coherent, correct and convincing.

Grades: There will be three tests and a comprehensive final exam. If you are going to miss an exam you **MUST** see me **PRIOR** to the exam. Some (but not all) excuses will be accepted prior to the exam but none will be accepted after.

The grade breakdown is as follows;

Homework and miscellaneous (attendance and quizzes):	15%;
Tests:	45% (15% each);
Projects:	15%;
Final exam:	25%.
Total:	100%.

The grade scale:

<60	60-62	63-66	67-69	70-72	73-76	77-79	80-82	83-86	87-89	90-92	93-100
F	D-	D	D+	C-	C	C+	B-	B	B+	A-	A

No calculator will be allowed to use in any of the tests or exams.

MathHelp: MathHelp is a free tutoring program run by students in the evenings. It is a place to enhance your understanding of the concepts in the course. However, it is not a place to get solutions to homework. I will announce the schedule when it becomes available.

Honor Code: The student is expected to conduct him or herself within the guidelines of the College's Honor Code.