Mathematics 2000: Calculus III – Winter 2006

Slots: Lecture 09 (Section 004), Labs 41A (Section 005) or 41B (Section 006)
Classrooms: Lecture A-1046, Labs HH-3026
Time: Lecture MWF 16:00 - 16:50, Labs Mon 9:00 - 10:29 am and 10:30am - 12:00
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Prerequisite:

The prerequisite is Math-1001. Note that if you do not have that course (or an appropriate waiver) you will automatically be deregistered from Math-2000.

Getting Help:

There are few ways of getting help. First, we have problem solving labs on Mondays and you should be coming to them and asking questions. Second, I'll have **office hours from 2pm-3pm on Mon, Tue, and Thur**, so feel free to come to them. If you need to speak to me outside of those times please make an appointment. If you have a quick question or remark send me an e-mail.

Marking Scheme:

There will be an assignment almost every week which I'll usually hand out on Fri. They'll usually be due a week later on Fri in class or assignment box. Late assignments will not be accepted. The **assignments** will be worth *only* **10**% of your final mark, *but doing them is extremely important for your understanding and success in the course!*

There will also be **one midterm test** on Friday **March 10**. The test will be worth **30**% of your final mark.

The **final exam** will cover the entire course. It will be worth **60**% of your final mark.

Note: If you miss an assignment or midterm for an acceptable reason, write me a note explaining the circumstances and I'll shift the weighting for the missed work to the final exam. Such notes should be submitted within a week of the missed event.

Missing the final exam is a much more serious matter. It can be deferred if you have three exams all scheduled within a 24 hour period, or if you suffer bereavement or serious medical problems. Deferrals must be officially applied for using forms that you can obtain from the General Office (HH-3003).

Formula Sheet and Calculators:

Graphing calculators such as the TI81,82,83,84,85,86 are allowed during tests and the final exam. However, calculators that can do symbolic manipulations such as the TI89, TI92, or HP48G are not allowed. If you use your calculator to store notes or formulas, you must delete this material before the start of any test, or exam. Bringing electronic notes into an exam is the equivalent of bringing in a cheat sheet, and will be dealt with in the same way (see MUN calendar).

Text and Course Outline:

The official text is Calculus : Early Transcendentals (*Fifth Edition*) by James Stewart, which will cover everything. If you have a different text (for example Larson, Hostetler, and Edwards) use that - all calculus texts are pretty much that same. However, if you're using a different text make sure that it covers both single and multivariable calculus. In any case we'll cover the following material, which is organized into three units (I'll give references for Stewart and LHE):

Unit 1	**Infinite Series**	Stewart 5th ed	Larson 2nd ed.
1.1	Sequences	11.1	8.1
1.2	Series	11.2	8.2
1.3	Integral Test and Estimates of Sums	11.3	8.3
1.4	Comparisons Tests	11.4	8.4
1.5	Alternating Series	11.5	8.5
1.6	Absolute Convergence and the Ratio and Root Tests	11.6	8.6
1.7	Strategy for Testing Series	11.7	8.6
1.8	Power Series	11.8	8.8
1.9	Representations of Functions as Power Series	11.9	8.9
1.10	Taylor and Maclaurin Series	11.10	8.10
1.11	Binomial Series	11.11	8.10
1.12	Applications of Taylor Polynomials	11.12	8.7
Unit 2	**Functions of Several Variables**	Stewart	Larson
2.1	Functions of Several Variables	14.1	12.1
2.2	Limits and Continuity	14.2	12.2
2.3	Partial Derivatives	14.3	12.3
2.4	The Chain Rule	14.5	12.5
2.5	Maximum and Minimum Values	14.7	12.8
Unit 3	**Multiple Integrals**	Stewart	Larson
3.1	Double Integrals over Rectangles	15.1	13.1
3.2	Iterated Integrals	15.2	13.1
3.3	Double Integrals over General Regions	15.3	13.2
3.4	Polar Coordinates	10.3	10.3
3.5	Double Integrals in Polar Coordinates	15.4	13.3
3.6	Applications of Double Integrals	15.5	13.4

Important Dates:

Jan. 9 Classes begin
- Jan. 23 Last day to add courses
- Feb. 20-22 Midterm break
- Feb. 27 Last day to drop courses WAP
- Mar. 10 Midterm test
- Apr. 7 Last day of lectures
- Apr. 12-22 Final exams