

Math 114 Calculus II

Fall 2008

§4, 5, 6 Lecture MWF 9:00 - 9:50 pm CB 234

§4 Recitation TR 12:30 - 1:45 pm FB 213 (Mr. Deb)

§5 Recitation TR 2:00 - 3:15 pm CB 345 (Mr. Polly)

§6 Recitation TR 9:30 - 10:45 am FB 213 (Mr. Polly)

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Office Hours: TBA and by appointment

<http://www.ms.uky.edu/~readdy/114/>

Text: Stewart, **Calculus**, 5th edition

Prerequisites: 1. High school trigonometry or MA 112
2. A grade of C or better in MA 113 or MA 132.

Material: Refer to the course schedule for the sections we will cover.

Teaching Asst: Mr. Dibyajyoti Deb (§4)
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Exams : There will be three evening exams held during the semester:
Tuesday, September 23, 2008
Tuesday, October 21, 2008
Tuesday, November 18, 2008
All of our evening exams will be held in CP 153 from 7:30 - 9:30 pm.

The date of the final exam is:
Wednesday, December 17, 2008
8:00 - 10:00 am
Location: TBA

The final exam is cumulative.
You must bring a valid photo ID to each exam.

Homework: Homework problems assigned for a given lecture are due at the beginning of the next lecture. The entire assignment will be graded for completeness (out of 5 points) and the starred problem will be graded in detail for correctness (out of 5 points). The maximum you may receive for a given homework assignment is 10 points.

You are expected to complete all of the homework problems, as well as to read and understand the material from the text and lectures.

Quizzes: A short quiz will be given during the last ten minutes of each Friday lecture, except during exam weeks. This will cover material from the previous week's Monday, Wednesday and Friday lectures.

Attendance: Students are expected to attend all of the lectures and recitations.

Attendance will be taken during recitation. Each unexcused absence from recitation will result in your recitation grade being reduced by 5 points. In other words, each unexcused recitation absence will drop your total course grade by one point (2 %).

Grading: Your course grade will be the sum of the following:

Homework, Quizzes & Recitation	100 points
Exam # 1	100 points
Exam # 2	100 points
Exam # 3	100 points
Final Exam	100 points

The 100 points for Homework, Quizzes and Recitation is found by taking the sum of your homework points (330 possible), recitation attendance (70 points), and quiz points (100 points) and dividing by 5.

Your final course grade will be assigned using the scheme:

A = 90 to 100 % (450 points and above)
B = 80 to 89 % (400 to 449 points)
C = 70 to 79 % (350 to 399 points)
D = 60 to 69 % (300 to 349 points)
E = 0 to 59 % (below 300 points)

At the instructor's discretion, a particular component of your coursework may be curved.

Cheating: Don't do it. It is an extremely serious offense. As a minimum response, I will give a zero to the offender.

No cellphones, computers or calculators allowed during quizzes and exams. By University policy the use of such constitutes cheating.

Makeup Exams: If you have a conflict or a valid University excuse, you need to notify me *in writing at least two weeks prior to the exam date*. Failure to do so will result in obtaining a zero on the exam. All makeup exams will be given during Dead Week.

What is Calculus II?

Calculus II is a continuation of Calculus I.

By the end of the semester, we will be able to answer the following questions:

- Why is the natural logarithm “natural”?
- What function describes a cable bridge?
- If you discover a dead body on the beach, how can you determine the time of the murder?
- What velocity must a rocket travel in order to escape the gravitational pull of the Earth?
- What really happens when you press the square root button or the $\sin x$ button on your calculator?
- What does the sequence 1, 1, 2, 3, 5, 8, 13, 21, ... have to do with rabbits, pinecones and flowers?
- You are offered a job which pays you 1 cent the first day and keeps on doubling your pay, that is, you are paid 1 cent on Day 1, 2 cents on Day 2, 4 cents on Day 3, etc. Should you take the job?
- You are riding your bicycle at night and a firefly lands on the rim of your wheel. What curve does your friend see as you ride past?
- What does Calculus have to do with Spirograph?

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 Course Schedule

Week 1	Wed	Aug 27	7.1	Inverse Functions
	Fri	Aug 29	7.2*	Natural Log
Week 2	Mon	Sep 1		HOLIDAY - LABOR DAY
	Wed	Sep 3	7.3*	Exponential Function
	Fri	Sep 5	7.4*	Gen'l exp and log
Week 3	Mon	Sep 8	7.5	Inverse Trig Functions
	Wed	Sep 10	7.6	Hyperbolic Functions
	Fri	Sep 12	7.7	L'Hôpital's Rule
Week 4	Mon	Sep 15	8.1	Integration by Parts
	Wed	Sep 17	8.2	Trig Integrals
	Fri	Sep 19		CATCHUP/REVIEW
Week 5	Mon	Sep 22		REVIEW
	Tues	Sep 23		EXAM I 7:30 PM - 9:30 PM
	Wed	Sep 24	8.3	Trig Substitution
	Fri	Sep 26	8.4	Partial Fractions
Week 6	Mon	Sep 29	8.5	Integration Strategies
	Wed	Oct 1	8.6	Integration Tables
			8.7	Numerical Integration
	Fri	Oct 3	8.7	Numerical Integration (cont'd)
Week 7	Mon	Oct 6	8.8	Improper Integrals
	Wed	Oct 8	10.3	Separable Equations
	Fri	Oct 10	10.4	Exponential Growth and Decay
Week 8	Mon	Oct 13	12.1	Sequences
	Wed	Oct 15	12.2	Series
	Fri	Oct 17		CATCHUP/REVIEW
Week 9	Mon	Oct 20		REVIEW
	Tues	Oct 21		EXAM II 7:30 PM - 9:30 PM
	Wed	Oct 22	12.3	Integral Test
	Fri	Oct 24	12.4	Comparison Tests
Week 10	Mon	Oct 27	12.5	Alternating Series
	Wed	Oct 29	12.6	Absolute Convergence; Ratio and Root Tests
	Fri	Oct 31	12.7	Strategies for Testing Series

Week 11	Mon	Nov 3	12.8	Power Series
	Tues	Nov 4		HOLIDAY - ELECTION DAY
	Wed	Nov 5	12.9	Representing Functions as Power Series
	Fri	Nov 7	12.10	Taylor and Maclaurin Series
Week 12	Mon	Nov 10	12.11	Binomial Theorem
	Wed	Nov 12	12.12	Taylor Polynomials
	Fri	Nov 14		CATCHUP/REVIEW
Week 13	Mon	Nov 17		REVIEW
	Tues	Nov 18		EXAM III 7:30 PM - 9:30 PM
	Wed	Nov 19	11.1	Parametric Equations
	Fri	Nov 21	11.2	Calculus with Parametric Curves
Week 14	Mon	Nov 24	11.3	Polar Coordinates
	Wed	Nov 26		HOLIDAY - THANKSGIVING
	Fri	Nov 28		HOLIDAY - THANKSGIVING
Week 15	Mon	Dec 1	11.4	Area & Polar Coordinates
	Wed	Dec 3	11.4	Area & Polar Coordinates (cont'd)
	Fri	Dec 5		CATCHUP/REVIEW
Week 16	Mon	Dec 8		CATCHUP/REVIEW
	Wed	Dec 10		REVIEW
	Fri	Dec 12		REVIEW
Week 17	Wed	Dec 17		FINAL EXAM 8 AM - 10 AM (READDY)
	Wed	Dec 17		FINAL EXAM 1 PM - 3 PM (ENOCHS)
	Fri	Dec 19		FINAL EXAM 8 AM - 10 AM (MAN)

August 25, 2008