

Calculus II – MA 124, B1
Fall 2011

	Professor	Teaching Fellow	
Name	Robert Pollack	Andres Larrain-Hubach	
Office	MCS 232	MCS 250	
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Office hours	TBA	TBA	
Lecture	MWF 2-3; CAS 522	—	
Discussion sections	—	B2: Mon 1–2	MCS B23
		B3: Mon 3–4	PSY B35
		B4: Tue 8:30–9:30	MCS B25
		B5: Tue 9:30–10:30	SED 212
		B6: Tue 3:30–4:30	CAS B06B

Text: The textbook for the course is:

James Stewart, *Calculus – Concepts & Contexts*, Fourth Edition, Thomson Brooks/Cole, 2010.

You are not required to purchase the CD's attached to this book. We will cover most of chapters 5.6–8.7. You are expected to know the material in chapters 1–5.5.

Website: There is a web page for the course located at:

<http://math.bu.edu/people/rpollack/Teach/124fall2011.html>

Homework assignments will be posted on this website along with other important information for the course.

Homework: Problem solving is an essential part of the course. Homework questions will be assigned each class and are expected to be completed by the following class. Homework will be collected **each Wednesday** at the start of class – you should turn in all problems assigned the previous week. Late homeworks will not be accepted, but your bottom two homework grades will be dropped.

You are allowed (even encouraged!) to work together on homework questions. But each student must write up their own solutions, using their own words and notation.

Section: During discussion sections you will have the opportunity to go over problems and discuss examples and techniques that you might not have understood from class or from a homework set. Be sure to come prepared to ask questions to get the most out of this experience.

Diagnostic quiz: A fifteen minute diagnostic will be given on Friday, September 9th. This quiz will cover basic topics in algebra, pre-calculus and first semester calculus. Your grade on this quiz will **not** count towards your final grade. The goal of the quiz is to help identify topics that each student needs more help with. Make-ups will not be given for this quiz.

Exams: There will be two in-class hour long exams during the semester and a final exam at the end of the semester. The dates of the exams are listed below:

Hour exam I	Wednesday, October 5	In class
Hour exam II	Monday, November 7	In class
Final exam	Wednesday, December 21, 3pm–5pm	TBA

Make-up exams and quizzes: You are expected to take all exams at the scheduled time. Make-up exams are rarely given, and only in truly exceptional circumstances.

Calculators: Graphing calculators are not required for this class. No calculators will be allowed during any exam or quiz.

Grading policy: Your final grade for the course will be determined according to the following scale:

Homework	25%
Hour exam I	20%
Hour exam II	20%
Final exam	30%
Class participation	5%

Attendance: You are expected to attend class and discussion section; in borderline cases I will use attendance and class participation to help determine your grade.

Academic honesty policy: Given the sterling qualities of character to be found in each and every student at Boston University, it is certainly unnecessary to mention that plagiarism and cheating are not only dishonest and immoral, but are also against the policies of Boston University. Please keep in mind that, in the highly unlikely event that you do choose to plagiarize or cheat, you will be referred to the University Academic Standards Committee for disciplinary action. For details see:

<http://www.bu.edu/academics/files/2011/08/AcademicConductCode.pdf>

Help outside of class:

- (1) You are very much encouraged to attend my office hours and the teaching fellow's office hours as posted above.
- (2) Our weekly discussion section is there to answer your questions. Come prepared and ready to ask away!
- (3) In MCS B24 at most times during working hours, there are math graduate students on duty to answer questions from any class. This is a fantastic resource that is available all week long.
- (4) Math Help on Tuesday nights 7:30-10:30 in the Cinema Room of Rich Hall, West Campus. This is walk-in tutoring and is also a great place to hold study group meetings, for any math or statistics class.
- (5) The Education Resource Center runs a tutoring program where free tutors in a subject for a few hours per week are available. See

<http://www.bu.edu/erc/>

for details.

- (6) If you would like to hire a private tutor, the math department (MCS 134) maintains a list of graduate students and their hourly rates.

Tentative Lecture Schedule: The following table contains a class-by-class schedule. This schedule (with the exception of exam dates) should be considered as tentative. Depending on the pace of the course, some topics may be deleted or inserted into the schedule.

Week	Date	Section	Topic	
1	September	7	5.5	Review of integration; Substitution
		9	5.6	Integration by parts
2		12	5.6	Integration by parts
		14	5.7	Trigonometric integrals/substitutions
		16	5.7	Partial fractions
3		19	5.9	Approximate integration
		21	5.9	Approximate integration
		23	5.10	Improper integrals
4		26	5.10	Improper integrals
		28	5.10	Improper integrals
		30	6.1,6.2	Area/Volume
5	October	3	–	Review
		5	6.1	First Exam
		7	6.4/6.5	Arc length/Average value
6		10	–	HOLIDAY
		12	6.6/6.7	Applications
		14	7.1	Differential equations
7		17	7.2	Direction fields
		19	7.3	Separable equations
		21	7.4	Exponential growth
8		24	7.5/7.6	Logistic equation/Predator-Prey
		26	–	Catch-up Day
		28	–	Catch-up Day
9	November	31	8.1	Sequences
		2	8.2	Series
		4	–	Review
10		7	–	Second Exam
		9	8.2	Series
		11	8.2	Series
11		14	8.3	Integral and comparison tests
		16	8.4	Ratio test
		18	8.4	Ratio test
12		21	8.5	Power series
		23	–	HOLIDAY
		25	–	HOLIDAY
13		28	8.5	Power series
		30	8.5	Power series
		December 2	8.6	Functions as power series
14		5	8.7	Taylor series
		7	8.7	Taylor series
		9	8.7	Taylor series
15		12	–	Catch-up Day/Review