

Calculus I – MA 124, B1
Fall 2008

	Professor	Teaching Fellow	
Name	Robert Pollack	Kalin Kostadinov	
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Office hours	Wed 1–2; Friday 3–4	Tues, Thurs 1:30–2:30	
Lecture	MWF 2-3; CAS 522	—	
Discussion sections	—	B2: Mon 1–2	PRB 148
		B3: Tue 3:30–4:30	MCS B23
		B4: Mon 3–4	CAS 235
		B5: Tue 8:30–9:30	CAS 426
		B6: Tue 9:30–10:30	CAS 428

Text: The textbook for the course is:

James Stewart, *Calculus – Concepts & Contexts*, Third Edition, Thomson Brooks/Cole, 2005.

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/124fall08.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. Although the homework questions will not be graded, it is essential that you keep up with the homework to be able to follow each successive lecture. Moreover, the quizzes in the discussion section are based on homework questions.

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.

Quizzes: There will be a 15 minute quiz in most week's discussion section. The questions on the quiz will be based upon the homework questions from the previous week. Your quiz scores will account for 20% of your final grade. The bottom two quiz scores will be dropped.

Diagnostic quiz: A fifteen minute diagnostic will be given on Friday, September 5th. 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	9/29	In class
Hour exam II	11/3	In class
Final exam	12/16, 3pm–5pm	TBA

Make-up exams and quizzes: You are expected to take all exams at the scheduled time. Make-up exams are only rarely given, in truly exceptional circumstance. Make-up quizzes are never given (but your bottom two quiz scores are dropped).

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:

Quizzes	20%
Hour exam I	25%
Hour exam II	25%
Final exam	30%

Attendance: You are expected to attend class; 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.

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 144 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) Professor Diane Meusser runs a weekly help session in West Campus and is happy to answer questions from any mathematics course. See

<http://math.bu.edu/people/dmm/FacRes/mathhelp.html>

for details.

- (5) The University 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	3	5.5 Review of integration; Substitution
		5	5.6 Integration by parts
2		8	5.6 Integration by parts
		10	5.7 Trigonometric integrals/substitutions
		12	5.7 Partial fractions
3		15	5.9 Approximate integration
		17	5.9 Approximate integration
		19	5.10 Improper integrals
4		22	5.10 Improper integrals
		24	5.10 Improper integrals
		26	– Catch-up Day/Review
5	October	29	– First Exam
		1	6.1 Areas
		3	6.2 Volume
6		6	6.2 Volume
		8	6.4 Average value
		10	6.5 Applications
7	(Tuesday!)	13	– HOLIDAY
		14	6.6 Applications
		15	– Catch-up Day
		17	7.1 Differential equations
8		20	7.1 Differential equations
		22	7.3 Separable equations
		24	7.4 Exponential growth
9		27	– Catch-up Day
		29	8.1 Sequences
		31	– Review
10	November	3	– Second Exam
		5	8.2 Series
		7	8.2 Series
11		10	8.3 Integral and comparison tests
		12	8.4 Ratio test
		14	8.4 Ratio test
12		17	8.5 Power series
		19	8.5 Power series
		21	8.5 Power series
13		24	8.6 Functions as power series
		26	– HOLIDAY
		28	– HOLIDAY
14	December	1	8.7 Taylor series
		3	8.7 Taylor series
		5	8.7 Taylor series
15		8	– Catch-up Day
		10	– Review