

Syllabus for MA124

Calculus II

Course Description: A standard second course in calculus, topics include fundamental theorem of Calculus, methods of integration and application of integrals, differential equations, sequences, Taylor series and power series. This material is the content of Ch.5 through Ch.8 of the class textbook.

Course Prerequisites: One semester of Calculus, e.g. MA123 or MA121

Instructor: Kalin L. Kostadinov

Contact Information: I could be reached by e-mail at kost@math.bu.edu, or by phone: (617) 353-5207, or drop by my office PSY 227.

Course Web Page: <http://math.bu.edu/people/kost/teaching/MA124.html>

Textbook: James Stewart, *Calculus: concepts and contexts*, Second Edition, Brooks/Cole ISBN 0-534-37718-1

Office Hours: Mondays and Wednesdays from 2:00PM to 3:00PM, other times by arrangement

Class Meeting Times: MTWR 11:00AM-1:00PM

Classroom: CAS 325

Exams: There will be a midterm exam on 9th of June and a final exam on 30th of June. Both will be 90 minutes long, during regular class time. Make-up exams are not given.

Quizzes: In the beginning of each class there will be a short 10 minutes quiz. There will be no make-up quizzes, so plan to arrive early.

Homework: Homeworks will be assigned two times a week, on Tuesdays and Thursdays and are due on the Thursday, respectively the Tuesday, following the assignment. Late homework is not permitted. I will drop two lowest homework grades to allow for missed assignments.

Grading: The components of the course are weighted as follows:

Homework:	30%
Quizzes:	30%
Midterm:	20%
Final:	20%

Academic Conduct: You are expected to abide by the code of academic conduct which governs course work at Boston University. Printed copies of the latest official version of the Academic Conduct Code may be obtained from the administrative office of the College of Arts and Sciences.

Enrollment Status: The last day to add/drop a class for Summer I term is Tuesday, May 25th. The last day to drop a class with a 'W' grade is Wednesday, June 9th. You cannot audit this class.

Schedule of lectures

Lecture	Topic	Reading	Problems
5/19 5/20	Review of Calculus Fundamental Theorem of Calculus	Sec. 1.0, 5.1-5-3 Sec. 5.4	1-19 odd
5/24 5/25 5/26 5/27	The Substitution Rule Integration by Parts Additional Techniques of Integration Tables of Integrals. Approximation.	Sec. 5.5 Sec. 5.6 Sec. 5.7 Sec. 5.8, 5.9	1-9 odd, 15-31 odd 1-33 odd 1-31 odd 1,9,15,19
5/31 6/1 6/2 6/3	Holiday, classes suspended Improper Integrals Area and Volume Arc Length	Sec. 5.10 Sec. 6.1, 6.2 Sec. 6.3	1-13 odd 1-17 odd 1-23 odd
6/7 6/8 6/9 6/10	Average Value of a Function Applications of Integration Applications of Integration II Midterm Exam	Sec. 6.4 Sec. 6.5 Sec. 6.6	1-13 odd 1-13 odd 1-7 odd
6/14 6/15 6/16 6/17	Differential Equations Differential Equations II Sequences Series	7.1-7.3 7.4-7.6 8.1 8.2	1-26 all 1-37 odd
6/21 6/22 6/23 6/24	Convergence Testing Convergence Testing II Power Series. Taylor Series Binomial Series and Applications	8.3 8.4 8.5-8.7 8.8-8.9	1-25 odd 1-15 odd
6/28 6/29 6/30	Using Series to Solve Differential Equations Review of Calculus II Final Exam	8.10	1-10 all

The 'Reading' columns refers to the relevant sections in the class textbook. Depending on your learning style, you may wish to read them before lecture, after lecture, both or neither. The 'Problems' column refers to the problems after the section specified in the previous column. This is NOT the list of the homework problems. The homework problems will often have essential overlap with this list of problems.