MATH 445 in MS 569
L01 M.W.F. 9:00 Lab 01 T. 9:00
Winter 2009

Instructor: Jędrzej Śniatycki, MS 320. Office hour: Wednesday, 14:00 - 15:00 (by appointment only).

Text: R. Creighton Buck, Advanced Calculus, Third Edition, McGraw-Hill.

Homework: There will be 4 homework problems from the text assigned every week. Only one of them will be marked for credit of 3% per assignment. Total maximum 30%. For the list of assigned problems see next page.

Midterm (50 min) in class on Friday, February, 27. Credit: 20%.

Final Exam (3 hours) scheduled by the Registrar. Credit: 50%

Detailed Lecture Schedule

Week	Section	Topics	Comments
Jan 12-16	1.1-1.4	Euclidean space	
Jan. 19-23	1.5 and 1.8	Basic topology	
Jan. 26-30	1.6 and 1.7	Sequences	
Feb. 2-6	2.1 - 2.6	Continuity	
Feb. 9-13	3.1 - 3.5	Differentiation	
Feb. 16-20	-	-	**Reading Weak, no classes**
Feb. 23 - 27	3.6	Extremal Problems	**Midterm Feb. 27**.
Mar. 2-6	4.1 - 4.3	Integration	
Mar. 9-13	4.3 - 4.5	Evaluation of integrals	
Mar. 16-20	5.1 - 5.5	Series	
Mar. 23-27	6.1 - 6.3	Uniform Convergence	
Mar. 30-Apr.3	7.1 - 7.5	Transformations	
Apr. 6-9	7.6 - 7.7	Implicit Functions	
Apr. 13-17		Reserve	
Apr. 20-30	-	-	**Final Exams**

Homework Assignments

Assignment 1 Due January 23 at 9:50. Sec. 1.4 problems **6, 8, 12, 16.**

Assignment 2 Due January 30 at 9:50. Sec. 1.5 problems **2, 19** and Sec 1.8 problems **1, 9**.

Assignment 3 Due February 6 at 9:50. Sec. 1.6 problems **14, 36** and Sec. 1.7 problems **6, 9**.

Assignment 4 Due February 13 at 9:50. Sec. 2.3 problem **6**, Sec. 2.4 problem **5**, Sec. 2.5 problem **12** and Sec. 2.6 problem **3**.

Assingnment 5 Due February 23 at 9:50. Sec. 3.2 problem **9**, Sec. 3.3 problem **7**, Sec. 3.4 problem **11** and Sec. 3.5 problem **3.**

Assignment 6 Due March 13 at 9:50. Sec. 4.2 problems **4**, **8**, **11** and **14**.

Assignment 7 Due March 20 at 9:50. Sec. 4.3 problems **2**, **8**, Sec. 4.4 problem **3** and Sec. 4.5 problem **7**

Assignment 8 Due March 27 at 9:50. Sec. 5.2 problem **11**, Sec. 5.3 problem **5**, Sec. 5.4 problem **9** and Sec. 5.5 problem **16**.

Assignment 9 Due April 3 at 9:50. Sec.6.2 problems **7** and **10**, Sec. 6.3 problems **1** and **14**.

Assignment 10 Due April 9 at 9:50. Sec. 7.2 problems **11** and **12**, Sec. 7.5, problems **2** and **3**.