SYLLABUS FOR MATH 630, FALL 2011

Monday, Wednesday, Friday 10:00 a.m. - 10:50 a.m.

MTH 0102

Instructor: Dr. Wojciech Czaja

Office: MTH 4406

Office Hours: TBA

Phone: (301) 405 - 5106

Prerequisite: MATH 411 or equivalent.

Text: Integration and Modern Analysis by Benedetto and Czaja, ISBN 9780817643065

Exams: Final exam and one midterm exam will be given. Midterm will be worth 50 points and the final examination will be worth 100 points.

Homework: Homeworks will be assigned on Fridays and are due the next Friday. Each one is worth 10 points, and there will be 10 of such assignments.

Extra credit: Extra points will be given for typos and errors found in the textbook. The point value of extra credit will be 1 point for each typo. The value of more serious problems will be negotiated.

Grading: The maximum point total is 250 points and the total used to calculate the final grade is the minimum of the two numbers: 250 points and the largest score in the class. The setting of letter grades will be based on this number of points and will be **no worse than**: 50% - D, 60% - C, 75% - B, 90% - A.

OUTLINE OF MATERIAL

Lebesgue measure and the Lebesgue integral on $\mathbf{R}$, differentiation of functions of bounded variation, absolute continuity and fundamental theorem of calculus, L^p spaces on $\mathbf{R}$, Riesz-Fischer theorem, bounded linear functionals on L^p, measure and outer measure, Fubini's theorem.