MA 5721, Fall 2001
MWF 14:05 -- 14:55
Building 15, r.126

Instructor: Iosif Pinelis
Office: Fisher Hall, r. 316
Phone: 487-3332
Office hours:
MWF 1:05 -- 1:55*
or by appointment

COURSE INFORMATION STATEMENT

COURSE OUTLINE

Text: Sidney I. Resnick. *Adventures in Stochastic Processes*. Birkhauser, Boston, 1992.

Chapter	Theme
2	Markov Chains
6	Brownian Motion
1	Generating Functions, Branching Processes

Additional material (taken from other sources and decided upon at a later time) may include 2nd order stationary processes, martingales, and applications to mathematical finance.

GRADING SYSTEM

Grades will be based on the accomplishment of homework assignments.** Each assignment will consist of a core, standard level part and an additional, more demanding part. Accomplishment of 80% of the core part will guarantee a “B” grade. To obtain higher grades, a student will have to accomplish something from the extra part. The other grades are determined by the following table.

Core Percentage Accomplished	72	64	56	48
Grade	BC	C	CD	D

* Subject to change upon announcements.
** All papers must be “Show All Work”, written in **full** English sentences, and 100% legible. Papers not up to such requirements may be returned and/or some credit may be withheld.

PROBLEMS

Chapter	Core	Extra
2	1, 41, 7(d),11(b), 12, 13(a, c)	2--5, 40, 42, 46, 7(a, b, c), 10, 43, 44, 46, 47, 50, 51
2	13(b), 15, 17, 18, 14, 16, 19(a,b), 30, 52, 39 (misprint: .301 must replace .391)	35, 70, 21, 23, 24, 27, 37, 48, 49, 65, 19(c, d)
6	1, 2, 5, 7, 8, 11, 12, 17, 18(c), 25	3 (misprint, replace T_{ab} by $B(T_{ab})$), 4, 9, 10, 13, 14, 16 (on $[0,\pi]$), 22--24, 26, 28, 32
1	1, 6, 8, 10, 21, 23, 25	2, 3, 5, 7, 9, 12, 14, 17, 28