Spring 2010

MATH 4058-1 Elementary Stochastic Processes

Time: Monday, Wednesday, Friday 8:40–9:30

Room: Lockett 132

Prerequisite

Math 2085 and Math 3355.

Textbook

S. M. Ross: Introduction to Probability Models. 10th Edition, Academic Press, 2010

Reference Book

H.-H. Kuo: Introduction to Stochastic Integration. Universitext, Springer, 2006

Coverage

- Chapter 3: Conditional Probability and Conditional Expectation (3.1–3.5)
- Chapter 4: Markov Chains (4.1–4.6)
- Chapter 5: The Exponential Distribution and the Poisson Process (5.1–5.4)
- Chapter 10: Brownian Motion and Stationary Processes (10.1–10.6)
- Itô integral and Itô's formula: From Chapters 4 and 7 of the reference book.

Grading

Homework	100 pts
Two 100-point exams	200 pts
Final exam	150 pts
Total score	450 pts

Tentative scale	A	380–450
	B	330–379
	C	280–329
	D	230–279
	F	below 230

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