THE UNIVERSITY OF TEXAS AT DALLAS
MATHEMATICAL SCIENCES DIVISION
FALL 2005 STAT 6329

COURSE TITLE	**APPLIED PROBABILITY AND STOCHASTIC PROCESSES**	**STAT 6329-501**
ROOM	**CB 1.114**	
INSTRUCTOR	**YULY KOSHEVNIK**	
TIME	**TUESDAY & THURSDAY 7:00 – 8:15 PM**	
OFFICE HOURS	**TUESDAY & THURSDAY 3:30 – 5:00 PM**	
OFFICE	**FO 2.614**	**THE ROOM WILL CHANGE SOON**
CONTACT INFORMATION:	**972-883-2161 (VOICE MAIL)** **214-402-0226 (CELL)**	**Email:** **Yuly.Koshevnik@utdallas.edu**

PREREQUISITE: STAT 5351

COURSE GOALS: LEARN BASIC CONCEPTS OF STOCHASTIC PROCESSES.
INTRODUCE SOME COMMONLY USED PROCESSES.

TEXTBOOK: SHELDON M. ROSS: INTRODUCTION TO PROBABILITY MODELS, 8TH EDITION, ACADEMIC PRESS, 2003

ADDITIONAL SOURCES:

1. KARLIN, S. A FIRST COURSE IN STOCHASTIC PROCESSES, ACADEMIC PRESS, 1968
2. CHUNG, K. L. A COURSE IN PROBABILITY THEORY, 2ND EDITION, ACADEMIC PRESS, 1974
3. PARZEN, E. STOCHASTIC PROCESSES, HOLDEN DAY, INC, 1962

PLEASE, READ CHAPTERS 1 AND 2 OF THE TEXT!

EVALUATION PROCEDURES	
TWO MIDTERM TESTS	CONTRIBUTE **30%** EACH
FINAL EXAM	CONTRIBUTES **40%**
IF YOU ARE GOING TO MISS A TEST, PLEASE **NOTIFY ME IN ADVANCE** *AND* **ARRANGE A MAKE-UP TEST.**	
HOMEWORK WILL BE ASSIGNED BUT NOT COLLECTED. SOLUTIONS WILL BE SHOWN NEXT WEEK.	

WITHDRAWAL POLICY	
LAST DAY TO DROP A CLASS WITHOUT A "W"	**FRIDAY, SEPTEMBER 2**
LAST DAY TO WITHDRAW WITH AN AUTOMATIC "W"	**TUESDAY, NOVEMBER 1**

TENTATIVE COURSE OUTLINE			
WK	**TUE**	**THU**	**TOPICS / SECTIONS**
1		AUG 18	INTRODUCTION: REVIEW OF MAIN CONCEPTS
2	AUG 23		CONDITIONAL PROBABILITIES AND EXPECTATIONS (3.1 – 3.5 AND 3.6.3)
		AUG 25	
3	AUG 30		MARKOV CHAINS (4.1 – 4.9) (ONLY 4.5.1 IN SECTION 4.5)
		SEPT 1	
4	SEPT 6		
		SEPT 8	
5	SEPT 13		
		SEPT 15	
6	SEPT 20		**MIDTERM TEST 1**
		SEPT 22	EXPONENTIAL DISTRIBUTION AND POISSON PROCESSES (5.1 – 5.3)
7	SEPT 27		
		SEPT 29	
8	OCT 4		CONTINUOUS TIME MARKOV CHAINS (6.1 – 6.5)
		OCT 6	
9	OCT 11		
		OCT 13	BROWNIAN MOTION AND STATIONARY PROCESSES (10.1 – 10.7)
10	OCT 18		
		OCT 20	
11	OCT 25		
		OCT 27	**MIDTERM TEST 2**
12	NOV 1		QUEUING THEORY (8.1 – 8.7)
		NOV 3	
13	NOV 8		
		NOV 10	
14	NOV 15		SIMULATION OF RANDOM VARIABLES / PROCESSES (11.1 – 11.2, 11.5)
		NOV 17	
15	NOV 22		FINAL REVIEW
		NOV 24	**THANKSGIVING DAY**
16	NOV 29		**FINAL EXAM AT 7 PM**

GRADING SCALE:						
[97, 100]	**[93, 97)**	**[90, 93)**	**[87, 90)**	**[83, 87)**	**[80, 83)**	**[77, 80)**
A+	**A**	**A –**	**B+**	**B**	**B –**	**C+**
[73, 77)	**[70, 73)**	**[67,70)**	**[63,67)**	**[60, 63)**	**[0, 60)**	

C	C –	D+	D	D –	F