

The University of Texas at Dallas
MATHEMATICAL SCIENCES DIVISION
FALL 2005
STAT 6339

COURSE TITLE	LINEAR STATISTICAL MODELS	STAT 6339-501
ROOM	FN 2.106	
INSTRUCTOR	YULY KOSHEVNIK	
TIME	MONDAY & WEDNESDAY 5:30 – 6:45 PM	
OFFICE HOURS	MONDAY & WEDNESDAY 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: <u>Yuly.Koshevnik@utdallas.edu</u>

PREREQUISITE: STAT 6331 (STATISTICAL INFERENCE)

AND BASIC MATRIX ALGEBRA OR EQUIVALENT

COURSE GOALS: LEARN THE THEORY OF LINEAR MODELS – THE MOST POPULAR DATA ANALYSIS TOOL.

TEXTBOOK: GEORGE A. F. SEBER AND ALAN J. LEE: LINEAR REGRESSION ANALYSIS 2ND EDITION, JOHN WILEY AND SONS, 2003

ADDITIONAL SOURCES:

1. RAO, C. R. – LINEAR STATISTICAL INFERENCE AND ITS APPLICATIONS, 2ND EDITION, WILEY, 1973
2. DRAPER, N. R. AND SMITH, H. – APPLIED REGRESSION ANALYSIS, 3RD EDITION, WILEY,

EVALUATION PROCEDURES / WITHDRAWAL POLICY	
TWO MIDTERM TESTS CONTRIBUTE 30% EACH	
FINAL EXAM (TUESDAY, NOVEMBER 29 AT 7:00 PM) CONTRIBUTES 40%	
<i>IF YOU ARE GOING TO MISS A TEST, PLEASE NOTIFY ME IN ADVANCE AND ARRANGE A MAKE-UP TEST.</i>	
HOMEWORK WILL BE ASSIGNED BUT NOT COLLECTED. SOLUTIONS WILL BE SHOWN NEXT WEEK.	
LAST DAY TO DROP A CLASS WITHOUT A “W”	FRIDAY, SEPTEMBER 2
LAST DAY TO WITHDRAW WITH AN AUTOMATIC “W”	TUESDAY, NOVEMBER 1

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	

TENTATIVE COURSE OUTLINE			
WK	MON	WED	TOPICS AND SECTIONS
1	AUGUST 22		VECTORS OF RANDOM VARIABLES MULTIVARIATE NORMAL DISTRIBUTION CHAPTERS 1 AND 2
		AUGUST 24	
2	AUGUST 29		
		AUGUST 31	
3	SEPTEMBER 5		LABOR DAY – NO CLASSES
		SEPTEMBER 7	
4	SEPTEMBER 12		LINEAR REGRESSION: ESTIMATION AND DISTRIBUTION THEORY CHAPTER 3
		SEPTEMBER 14	
5	SEPTEMBER 19		
		SEPTEMBER 21	
6	SEPTEMBER 26		
		SEPTEMBER 28	
7	OCTOBER 3		HYPOTHESIS TESTING CHAPTER 4
		OCTOBER 5	
8	OCTOBER 10		CONFIDENCE INTERVALS AND REGIONS CHAPTER 5
		OCTOBER 12	
9	OCTOBER 17		
		OCTOBER 19	
10	OCTOBER 24		STRAIGHT LINE REGRESSION AND POLYNOMIAL REGRESSION CHAPTERS 6 AND 7
		OCTOBER 26	
11	OCTOBER 31		
		NOVEMBER 2	
12	NOVEMBER 7		MIDTERM TEST 2
		NOVEMBER 9	
13	NOVEMBER 14		REGRESSION DIAGNOSTICS AND REMEDIES CHAPTERS 8 – 10
		NOVEMBER 16	
14	NOVEMBER 21		MODEL SELECTION CHAPTER 12
		NOVEMBER 23	
15	NOVEMBER 28		FINAL REVIEW
		NOVEMBER 30	FINAL EXAM AT 5 PM