BOSTON COLLEGE
DEPARTMENT OF ECONOMICS

EC155
Spring 1997
T Th 12:00-1:15

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Office Hours: W Th 4:30-5:30
Kevin Cahill, M T 3:30-4:30

HONORS STATISTICS
MANAGEMENT

This is an introductory course in statistics. The primary goal is to learn how to draw reasonable inferences about a population on the basis of a sample drawn from that population. The course has four sections, each more interesting than the previous one.

1) descriptive statistics
2) probability
3) statistical inference
    -estimation
    -hypothesis testing
4) regression analysis

The brief section on descriptive statistics will be a review for some of you. Probability theory is interesting in its own right, and is a necessary prerequisite for statistical inference, which is the heart of this course. We will end with a brief introduction to (and advertisement for) regression analysis, which is the primary statistical tool used by economists and a logical and very valuable sequel to introductory statistics. Students who enjoy EC155 should consider taking EC228, Econometrics, or MD384, Applied Statistics.

Textbook: Thomas Wonnacott and Ronald Wonnacott,
Introductory Statistics for Business and Economics
John Wiley and Sons (4th edition)
This text is required reading and should be purchased.

Course Requirements:

The course meets twice per week for lectures. I will also run optional review sessions, focusing primarily on problem sets, during most weeks. We will schedule these as we proceed. There will be two in-class midterm exams and a comprehensive final exam (see dates below), eight problems sets (due in class on the dates noted) and five short in-class quizzes. The problem set and quiz dates are all shown on the syllabus.

The problem sets are essential to learning this material. I do not mind if you consult with classmates after you have tried the problem sets yourselves. Learn from each other. The problems on the quizzes and exams will resemble those on the problems sets

This course is hierarchical, with each section building on the prior ones. Therefore, it is a very bad idea to fall behind in statistics. Attendance is very highly recommended, as is serious individual effort on the problems sets.

Grading Policy:

Problem Sets (8)	16%
Quizzes (best 4 of 5)	16%
Midterm I (Thursday, Feb. 20)	15%
Midterm II (Thursday, April 10)	20%
Final Exam (Saturday, May 3, 12:30 PM)	33%

There will be no make-up exams or quizzes, so pay close attention to the dates on the syllabus below. Put them on your social calendar now! Those who miss a midterm will have the weights on subsequent exams increased. The lowest of the 5 quiz grades will be dropped, so missing more than one is a bad idea. Submission of the problem sets will be noted, and credit based on the number you hand in on time, but not on the grades you receive on them.

Academic Integrity:

I expect all students to do only their own work on quizzes and exams, and to make serious individual efforts on the problems sets. We will discuss collaboration on the problems sets in more detail in class.

SYLLABUS

DATE	TOPIC	CHAP	QUIZ [chap]	PROBLEM SETS OUT	DUE	BACK
1/14	Introduction	1				
1/16	Descriptive statistics	2		PS1		
1/21	Descriptive statistics	2				
1/23	Probability	3		PS2	PS1	
1/28	Probability	3				PS1
1/30	Probability 3		Quiz 1 [2]			
2/4	Discrete random variables	4(1-3)		PS3	PS2	
2/6	Discrete random variables	4(1-3)				
2/11	Discrete random variables	4(1-3)				PS2
2/13	Continuous random variables	4(4-6)	Quiz 2 [3]	PS4	PS3	
2/18	Continuous random variables	4(4-6)				PS3
2/20	MIDTERM EXAM I	[1-4]				
2/25	Two random variables	5				
2/27	Sampling	6		PS5	PS4	
3/11	Sampling	6				PS4
3/13	Point Estimation	7	Quiz 3 [5]		PS5	
3/18	Confidence Intervals	8		PS6		PS5
3/20	Confidence Intervals	8				
3/25	Confidence Intervals	8				
4/1	Hypothesis testing	9		PS7	PS6	PS6*
4/3	Hypothesis testing	9	Quiz 4 [7,8]			
4/8	Hypothesis testing	9				
4/10	MIDTERM EXAM II	[5-8]				
4/15	Hypothesis testing	9				
4/17	Contingency tables	17		PS8	PS7	
4/22	Linear regression	11(1-2)				PS7
4/24	Linear regression	12	Quiz 5 [9]			
4/29	Linear regression	13(1-4)			PS8	PS8*
5/3	FINAL EXAM Saturday, May 3, 12:30 PM	[all]				

* answer sheet distributed