BOSTON COLLEGE
Department of Economics

EC 151.05   Kelly Haverstick
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Introduction to Statistics

This is an introductory course in statistics. The primary goal of this course is to introduce you to important statistical concepts and their applications. Once you are familiar with these, the final objective is to use what your have learned to be able to draw inferences about a population based on a sample drawn from that population.

Textbook: Anderson, Sweeney, and Williams Essentials of Statistics for Business and Economics. This text is required.

Course Requirements:

        This course meets three times a week. There will be three exams: two midterms and one comprehensive final exam.
        The problem sets will consist of questions (mostly from the textbook) and computer exercises. The computer exercises will use data contained on the CD-ROM that accompanies the text.
        There will be a short quiz approximately every two weeks, with dates to be announced. The lowest quiz grade will be dropped.
        This course is hierarchical, with each section dependent on the previous ones. Therefore, it is very important to keep up with the material in this course. Although attendance will not be taken, it is highly recommended.

Grading Policy:

Problem sets	10%
Quizzes	15%
Midterm Exam #1	20%
Midterm Exam #2	20%
Comprehensive Final	35%

        Both midterm exams will be given outside of class so that there will be sufficient time to complete each exam. The first midterm exam will be on **Wednesday, October 6, 1999** at **4:00** and the second will be on **Wednesday, November 10, 1999** at **4:00**. There will be no make-up exams or quizzes, so please make sure you do not have a scheduling conflict with these dates.

Academic Integrity:

        I require all students to do their own work on quizzes and exams. Joint work on problem sets is encouraged; however, each student is expected to independently write up his/her own answers to be handed in.

Schedule of Topics

I.	Descriptive Statistics	Chapters 1-3

    1. Graphical presentation of data and results for effective interpretation. (1 lecture)
    2. Measures of central tendency and dispersion and other methods of
       describing data, such as percentiles, quartiles, etc. (2 lectures)

II.	Probability and Distributions	Chapters 4-7

    1. Computation of probability for simple and complex events (3 lectures)
    2. Discrete probability distribution (Binomial and Poisson distributions) (3 lectures)
    3. Continuous probability distribution(Uniform, Normal, and Normal
       approximation to the binomial) (4 lectures)
    4. Sampling distribution of sample means (3 lectures)

III.	Inferences based on estimation	Chapter 8

    1. Large and small sample confidence interval estimation for means (2 lectures)
    2. Confidence interval estimation for proportions (2 lectures)
    3. Determination of confidence levels and sample size (2 lectures)

IV.	Inferences based on hypothesis testing	Chapter 9

    1. Elements of hypothesis testing (1 lecture)
    2. Type I and II errors in hypothesis testing (2 lectures)
    3. Large and small sample tests of hypothesis for the population mean (3 lectures)
    4. Tests of hypothesis for population proportions (3 lectures)

V.	Regression	Chapter 12

    1. Simple regression (2 lectures)
    2. Multiple regression (1 lecture)
    3. Testing hypothesis of regression coefficients (1 lecture)