course. Lectures are sequential in this course, so missing class and not studying the missed material before the next lecture is a recipe for disaster. *I cannot over-emphasize how important classes are in order to obtain a passing grade.* **Although attendance is not mandatory, you are responsible for any announcement or instructions given in class (this include instructions for test).**

Prerequisites:
    Econ 1000, or 2010 and 2020 and either Econ 1078 and 1088 or equivalent math courses. The latter prerequisites are strictly enforced, if you are listed as not meeting the course prerequisites, you must show me that you have the appropriate math equivalent.
    We will be using differentiation and integration.

Homework: I will post 3 homework on Desire2Learn. The due dates will be clear in the homework file when posted. I will also post on Desire2Learn a pdf answer sheet for you to submit your homework answers. I do not accept homework that is not in the answer sheet format. For homework, I will grade only your answer, as the answer sheet suggests.

Exams: None of the exams are cumulative, not even the final. In the exams you must show the work for all non true or false questions. Answers, even if correct, without the appropriate \work" and calculations shown will be given zero points. This does not mean you have to show me how to add and multiply, what it means is that if the question requires you to make some mathematical steps, those steps should be shown in your answer. There may be questions on exams that requires a written explanation, therefore such explanations must be shown in order for you to get full credits in these questions. Some exams might have bonus questions. No one will obtain more than 100% in an exam. For the final, I will give you in class a list of atrocities. If you write any of these atrocities or anything resembling them, you will receive -1% for each time you write it. If you obtain negative points on the final, these points will be subtracted after the bonus question is factored in, in case the final has a bonus question. For example, suppose you write five atrocities, but you answer 90% of the exam correctly. Furthermore, assume you answer correctly the bonus question and suppose it is worth 20%. Your grade after the bonus question is 100%. However, after the atrocity deduction, you would get a final exam grade of 95%. No one will obtain less than 0% in any exam.

Textbook:

    Caniglia, A. (1992) *Statistics for Economics: An Intuitive Approach.* Harper-collins College Press.

    Students are required to acquire the above textbook.

Other helpful textbooks:

Amemiya, T. (1994) *Introduction to Statistics and Econometrics*. Harvard University Press, Cambridge, MA.

Mean, Mode and Median

Variance and Standard Deviation

Covariance and Correlation

5. Useful Distributions

Bernoulli Distribution

Binomial Distribution

Poisson Distribution

Uniform Distribution

Normal Distribution

Chi-squared Distribution

t-Student Distribution

F Distribution

6. Estimation and Inference

Method of moments estimator

Bias, Efficiency and Mean Squared Error

Test Hypothesis

Interval Estimation

7. Asymptotic Theory (if time permits)

Convergence in r-th mean

Almost Sure Convergence

Convergence in Probability

Convergence in Distribution

Law of Large Numbers

Central Limit Theorems

Hypothesis Testing without the Normality Assumption

Exam Material: Based on the items of the course outline:

Exam	Material
Midterm 1	1 and 2
Midterm 2	3 and 4
Final Exam	5, 6 and 7

Miscellaneous:

Hardware and Software: R will be used for some data analysis. Although not required, there are many excellent R manuals available. R is supported in many of the campus computer labs, including the lab in the basement of the Economics building. R is an open source program which can be downloaded in `http://cran.r-project.org/`. You may use other softwares, such as Excel, however, I will not cover Excel in this class. In addition to this you will need a calculator for the exams.

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