

Brooklyn College (CUNY), School of Business

COURSE SYLLABUS

Business/Economics 3400 (formerly 30.2): Introduction to Economics and Business Statistics

This is a partially online course and some classes may be fully online. You will be expected to use the course website and the internet to supplement what you learn in class. This course is on Blackboard and on my website (see below).

Lectures with audio narration as well as exercises with solutions are available at:

<https://sites.google.com/site/proffriedmanstat/> If you are using a Macintosh computer, you may have to download a simple program to hear the audio part of the lectures.

INSTRUCTOR: Dr. H. H. Friedman (Many of his publications may be found at his SSRN page at http://papers.ssrn.com/sol3/cf_dev/AbsByAuth.cfm?per_id=638928)

TEXTBOOK (Recommended): *Business Statistics: Schaum's Outlines* by Leonard J. Kazmier, McGraw-Hill, Latest Edition. This is only for students who feel they need another textbook.

There is a textbook (free) in the form of PDFs written by my wife and me at my website.

<https://sites.google.com/site/proffriedmanstat/> This should be more than adequate for this course.

CALCULATOR: Students must bring a simple, scientific calculator to every class. Calculator should have nPr (permutations) and nCr (combinations) keys. Do not bring a programmable calculator to the exam.

REQUIRED FORMULA SHEETS AND TABLES

You may download them from:

https://www.researchgate.net/publication/280925936_Tables_and_Formula_Sheets_for_an_Introductory_Statistics_Course

EXPECTED COURSE GOALS AND LEARNING OBJECTIVES:

Assignments and grading criteria will reflect the course goals and learning objectives.

At the conclusion of the course students should be able to:

- (1) Develop the skills to identify the appropriate statistical technique for the analysis of data.
- (2) Learn how to present and interpret data for people not familiar with statistics.
- (3) Understand how to use the computer (e.g., MS Excel) for data analysis. Learn how to read printouts.
- (4) Statistical techniques covered will include Z-tests, t-tests, F-tests, correlation and simple regression. One-sample and two-sample tests will be covered.
- (5) Understand the importance of ethics in decision making. See how easy it is for an unscrupulous researcher to purposely use statistics to provide deceptive information.
- (6) Enhance their critical thinking skills. Quantitative reasoning is important in critical thinking as well as problem solving.

The following papers on SSRN will be used for course outcomes (5) and (6).

(a) "Using Real-World Examples to Enhance the Relevance of the Introductory Statistics Course"

http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2129750

(b) "School Rankings: Descriptive Statistics or Incentives to Manipulate?"

http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2371726

(c) "How Statistics Can Save Your Life or End It: A Course Module"

http://papers.ssrn.com/sol3/cf_dev/AbsByAuth.cfm?per_id=638928

TOPICS (by week)

1. Introduction: Introduction to course, terminology, levels of measurement, and data collection
2. Descriptive Statistics: Frequency distributions, scatter diagrams, and descriptive statistics
3. Introduction to Probability: Basic probability concepts, Venn Diagrams, independence, etc.
4. Probability Distributions: Contingency tables and probability distributions
5. Binomial distribution
6. Normal Distribution: The two Z-tables and how to use them.

****MIDTERM (beginning of Week 7)**

7. Sampling Distributions, Introduction to Statistical Inference, Estimation, and Hypothesis Testing -Z tests: Central Limit Theorem; One-sample Z-tests; one-tail and two-tail tests
8. The T-Distribution: One-sample t-tests; one-tail and two-tail tests
9. Inferences about the Proportion: One-sample Z-test for Proportions; one-tail and two-tail tests
10. Two-Sample Z-tests for the mean
11. Two-Sample T-tests for the mean: Interpretation of MS Excel printouts
12. Two-Sample Z test for proportions

**** Exam II – Statistical Inference --Topics 7 through 12 (End of Week 12)**

13. Introduction to Correlation
14. Simple Linear Regression: Interpretation of Printouts

**** FINAL – Correlation and Simple Regression (Check date in college calendar)**

GRADES: There will be three exams and numerous homework assignments. Homework must be done on time. **If you do not do three homeworks, you fail the course.**

Course Assessment: Midterm (50%); Exam II (30%); Final (20%).

ATTENDANCE POLICY: If you want to do well in the course, it is important to attend class regularly. There are no makeup exams. Assignments must be submitted on time.

OFFICE HOURS: Tuesday & Thursday: 7:30 – 8:50 AM & by appointment; Room 219 (Whitehead) (718) 951-5000 x2084; E-mail: x.friedman@att.net Please note that e-mail is not to be used to discuss grades. If you have a problem with a grade, see me during my office hours. Also, once a grade is given it is illegal to change it (unless there has been a computational error)—this is a college rule. Cell phones must be turned off when coming to class.

Sample exams, class notes, handouts, and useful links are also available at my website:

<https://sites.google.com/site/proffriedmanstat/>

Disabilities:

In order to receive disability-related academic accommodations students must first be registered with the Center for Student Disability Services (CSDS). Students who have a documented disability or suspect they may have a disability are invited to set up an appointment with the Director of the Center for Student Disability Services, Ms. Valerie Stewart-Lovell at 718-951-5538. If you have already registered with the CSDS please provide your professor with the course accommodation form and discuss your specific accommodation with him/her as soon as possible and at an appropriate time.

Finally, for additional information download the latest edition of the CUNY publication: Reasonable Accommodations: A Faculty Guide to Teaching College Students with Disabilities from CUNY's Assistive Technology Services website at <http://cats.cuny.edu/>. The purpose of this guide is to provide faculty with information and suggestions to help meet the classroom needs of students with disabilities. It is a superb resource. I encourage you to make use of the information being provided.

Please contact Valerie Stewart-Lovell, Director of the Center for Student Disability Services located at 138 Roosevelt Hall, extension 5538 if you have any questions regarding accommodations, resources and services provided through the Center. Contact Tunji Fussell, Interim Chief Diversity Officer of the Office of Diversity and Equity, located at 2147 Boylan Hall, extension 4128, or this office if you have any questions or comments regarding our college policies for students with disabilities.

University Policy on Academic Integrity:

The faculty and administration of Brooklyn College support an environment free from cheating and plagiarism. Each student is responsible for being aware of what constitutes cheating and plagiarism and for avoiding both. The complete text of the CUNY Academic Integrity Policy and the Brooklyn College procedure for implementing that policy can be found at this site: <http://www.brooklyn.cuny.edu/web/about/initiatives.php>. If a faculty member suspects a violation of academic integrity and, upon investigation, confirms that violation, or if the student admits the violation, the faculty member MUST report the violation.

Non-attendance Because of Religious Beliefs:

This class will adhere to state law regarding non-attendance because of religious beliefs.

Important Dates

If you go to the college website, you will see all the important dates including conversion days, last day to drop a course without a grade, last day to withdraw from a course with a W grade, and last day to resolve INC grades from the previous semester.

<http://www.brooklyn.cuny.edu/web/about/administration/enrollment/registrar/bulletins.php>