

Introduction to Economic and Business Statistics (BUSN 3400)

Brooklyn College | Spring 2020

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| Instructor | Email | Class Location and Hours |
| **Aman Ojas Desai** | Aman.desai@brooklyn.cuny.edu | TuTh 6:05PM - 7:45PM  Whitehead 207 |

Instructor Information

# General Information

## Description

This is a broad-based introductory business statistics course that focuses on descriptive statistics, regression, estimation, and testing hypotheses. Topics covered include graphical methods, descriptive statistics, probability and probability distributions, the normal distribution, sampling distribution of the mean, estimation for means and proportions, hypothesis testing for one and two groups, and linear regression and correlation. This going to be a hybrid class where computer slides and excel software are also going to be used to enhance learning experience of the students.

## Expectations and Goals

The objective of the course is to provide students enough background so that they will be able to

* Learn how to summarize data (descriptive statistics)
* Learn how to use sample data to make inferences about population parameters.
* Become an informed user of statistical analysis.
* Learn to think for yourself.
* Knowledge of statistics will allow you to see the difference between junk science and real science.
* Develop the skills to identify the appropriate statistical technique for the analysis of data.
* Learn how to present and interpret data for people not familiar with statistics.
* Understand how to use the computer (e.g., MS Excel) for data analysis.
* Statistical techniques covered will include Z-tests, t-tests, F-tests, correlation and simple regression.
* One-sample and two-sample tests will be covered.
* Reinforce quantitative reasoning

## Required Materials

I strongly believe writing notes by hand helps a lot. It is recommended that you take notes of the material covered in lecture. I am going to use Prof. Friedman’s notes as a primary source of this course. I will regularly post notes on the blackboard as well. These notes are going to be enough for the course. You should bring a **scientific calculator** during the lectures. **Programmable calculators are not allowed**.

## Optional Texts

**Introductory Statistics, Fifth Edition by Thomas Wonnacott and Ronald Wonnacott**

# Topics to be covered

| Week | | Topic | |
| --- | --- | --- | --- |
| Week 1 | | Introduction | |
| Week 2 | | Descriptive Statistics, Scatter Diagrams, Frequency Distributions | |
| Week 3 |  | Basic Probability and Distributions |  |
| Week 4 |  | Binomial Distribution |  |
| Week 5 | | Normal Distribution and Fundamental Concepts | |
| Week 6 | | Fundamental Concepts continued | |
| Week 7 | | Estimation and Hypothesis Testing: One-Sample Z, one-tail, and two-tail tests | |
| Week 8 | | Estimation and Hypothesis Testing: One-Sample t, one-tail, and two-tail tests | |
| Week 9 | | Estimation and Hypothesis Testing: One-Sample Z for Proportions, one-tail, and two-tail tests | |
| Week 10 | | Estimation and Hypothesis Testing: Two-Sample Z | |
| Week 11 | | Estimation and Hypothesis Testing: Two-Sample t-test,  F-test | |
| Week 12 | | Estimation and Hypothesis Testing: Two-Sample Z for Proportions | |
| Week 13 | | Correlation | |
| Week 14 | | Simple Regression and Interpretation of Statistical Results | |

# Important Dates

| Date | Day |
| --- | --- |
| 04/07/2020 | Classes Follow Wednesday Schedule |
| 04/08/2020 to  04/16/2020 | No Classes  (Spring Recess) |

**Course Evaluation**

There will be two exams (one midterm and one final exam) throughout the course. **The final exam will not be** **cumulative**. You are responsible for submitting assignments in hard copy. The assignments will be due before the start of the class. I will make an announcement via Blackboard or email if there is any change on due dates. Also, note that **there will be no extra credit assignments.**

Course Evaluation will be as follows:

Attendance 10%

Assignments 20%

Midterm Exam 20%

Final Exam 40%

Class Participation 10%

Attendance and appropriate classroom participation are critical factors for a profitable production of good grades in this class. Cellphones, beepers, late entrances and early departures, talking to your classmates while the teacher is talking—all create negative externalities. If you miss any exams without valid proof of absence your grade will suffer a score of zero. **Written documentation of a valid excuse allows you to take a make-up exam.** (Note that flight tickets, hotel reservations do not count as valid proof)

**Grading System**

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| --- | --- |
| **Final Grades** | **Percentile** |
| A+, A, A- | 90 - 100 |
| B+, B, B- | 80 – 89 |
| C+, C, C- | 70 – 79 |
| D+, D, D- | 60 – 69 |
| F | Fail |

**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 policy implementation can be found at [www.brooklyn.cuny.edu/bc/policies](http://www.brooklyn.cuny.edu/bc/policies) . 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.

**Center for Student Disability Service**

In order to receive disability-related academic accommodations students must first be registered with the Center for Student Disability Services. 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 Center for Student Disability Services, please provide your professor with the course accommodation form and discuss your specific accommodation with him/her.

**Non-Attendance Due to Religious Beliefs**

This class will adhere to state law regarding non-attendance because of religious beliefs. Please inform me of your religious holidays so that the midterm exam is not scheduled on that date. Class attendance should not be a religious beliefs concern for this class, as I allow a total of either 10 late or absences before any penalty.

**Student Bereavement Policy**

See website of <http://www.brooklyn.cuny.edu/web/about/initiatives/policies/bereavement.php>