

Course Outline – Fall 2015
COR1-GB.1305 – Statistics and Data Analysis

Meeting Time & Place

Lectures: Monday: 6:00 PM – 9:00 PM
Final Exam: Monday, December 7, 6:00 PM – 9:00 PM
Class Room: KMC 2-70

Course Staff

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| Instructor: | Prof. Patrick Perry |
| E-mail: | pperry@stern.nyu.edu |
| Office: | KMC 8-63 |
| Office Hours: | By appointment (available Tuesday 5:00 PM – 7:00 PM) |
| Teaching Fellow: | Paul Neumaier |
| E-mail: | pjn222@stern.nyu.edu |
| Office: | KMC 7-100 (TA Center) |
| Office Hours: | Thursday 6:30 PM – 8:00 PM |

Course Website

Handouts, assignments, and data sets will be posted to

<http://ptrckprry.com/course/cor1305/>

Grades will be posted to the NYU Classes website for the course.

Course Objectives

After taking this course, you will have a strong fundamental understanding of statistics and its applications. You will learn how to use measurements and data to make statements about the world. You will learn how to understand and interpret similar statements made by others.

Course Organization

You will be responsible for the material contained in course lectures, handouts, and homework assignments. The lectures will follow the handouts passed out in class and posted to the course webpage. These notes are not comprehensive, and the lectures will often contain more information than what is on the handouts. Consult the textbook for more detail coverage of the course material.

Texts and Materials

1. Stine and Foster, *Statistics for Business*, Second Edition, Pearson. (Optional)
2. Minitab 17 or Minitab student version. *Minitab will only run on a Windows PC. If you do not have a Windows PC, then you can run Minitab in the student computer labs or online via <http://apps.stern.nyu.edu>.*

Class Attendance And Participation

Participation is an essential part of learning in this course. Students are expected to participate in all facets of classroom learning. This is not a formal part of your grade, but if you demonstrate that you are actively and consistently participating and involving yourself in the learning process, I may boost your final grade by up to one point, for example, from a B+ to an A-.

Classroom Norms

Cell phones, smartphones and similar electronic devices are a disturbance to both students and professors. All such electronic devices must be turned off prior to the start of each class meeting. To minimize distractions to others, if you use your laptop during class, please sit in the last row.

Regrading

If you find what you believe to be a grading error on an assignment or exam, you must bring the matter to the attention of the course staff no later than 7 days after the assignment was handed back. *Requests for grading adjustments after this will not be considered.* This includes cases when the written grade does not match the recorded grade on the course website. Discuss homework grading issues with the teaching fellow, and discuss midterm grading issues with the instructor. You must discuss all grading issues in person.

If you erase anything, change any answers, or add any notes after your assignment or exam has been graded, you may not submit the assignment or exam for regrading. If you modify an assignment or exam in any way after it gets returned, and then you submit that assignment or exam for regrading, this will be considered to be a violation of the academic integrity policy.

Grading Policy

We will have homework, a midterm, and a final exam. Your grade will be based on these, as well as class participation.

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| Homework | 25% |
| Midterm | 30% |
| Final | 45% |

Exams

There is one midterm and one final exam. If you have a potential conflict during one of the exams, you must discuss the matter with the instructor during the first week of the semester.

Homework

Weekly homework assignments count for 25% of your grade. We will return these assignments to you the week after you turn them in. I suggest that you keep a copy of their homework to study from (in case it is not returned before an exam).

Late Policy

Assignments are due at the beginning of class on the day specified, and late assignments are strongly discouraged. That said, there are unforeseen emergencies (illness, etc.) that cannot always be planned for in advance. Instead of having to ask for special allowances on an individual basis, I give each of you the privilege of granting yourself a small extension in case of crisis. You have two self-granted extensions or “late days” which you may use to extend the due dates of any assignments without penalty. A “day” is defined as a Monday or a Thursday. Thus, if your assignment was due at the start of Monday’s lecture, if you turn it in by the end of the TF’s office hours on Thursday, then that assignment is one day late; if you turn it in at the start of the following Monday’s lecture, then that assignment is two days late.

Although late days are not intended to cover poor planning or procrastination, I won’t ask for justification and will assume you will use your self-granted extensions fairly and wisely. Late days are valuable, and it pays to keep some around for the harder assignments toward the end of the semester. Further extensions are not even considered until you have exhausted your own late days for legitimate needs. They are rarely granted and then only for extraordinary circumstances (such as extended medical problems or other emergencies). In such a situation, send e-mail to me no later than 24 hours before the assignment is due.

Calendar

| Date | Topics | Textbook Chapters | HW Due |
|-------|---|----------------------|-----------|
| 9/21 | Sampling; Descriptive Statistics | 1–4, 13 | S |
| 9/28 | Probability; Conditional Probability | 7–8 | 1 |
| 10/5 | Random Variables; Models for Counts | 9, 11 | 2 |
| 10/12 | The Normal Model; The Central Limit Theorem | 12, 14.1 | 3 |
| 10/19 | Confidence Intervals | 15 | 4 |
| 10/26 | Midterm | | 5 |
| 11/2 | Statistical Tests | 16 | |
| 11/9 | Comparison | 17 | 6 |
| 11/16 | Association; Linear Regression | 6, 19 | 7 |
| 11/23 | Regression Assumptions; Diagnostics | 21, 22 | 8 |
| 11/30 | Multiple Regression | 23, 24 | 9 |
| 12/7 | Final Exam | | 10 |

S: fill out online survey.