Math 23- Probability and Statistics
Bronx Community College, CUNY
Section B09, MW 10:00am-11:50am, Polowczyk Hall 309

Instructor: Mehdi Lejmi
Email: mehdi.lejmi@bcc.cuny.edu
Phone: (718) 289-5415
Office: CP 319
Office Hours: M, W 4:00pm - 5:00pm

Course Description:

This is an introductory level probability and statistics course. It is a one semester course designed to introduce accumulating and sorting data, recognizing correlations, predicting outcomes, analyzing distributions, inferring and making reasonable conclusions . The topics we will cover are Chapters 1-9 of the text, skipping a few sections along the way. Additional topics will be covered if time permits.

Prerequisites: Students enrolled in this course must have either taken MATH 05 or an equivalent. A co-requisite is ENG 02 and/or RDL 02, if required.

Textbook: : Understanding Basic Statistics by Brase & Brase, 7th ed. (7th Edition, ISBN-10: 1337349097, ISBN-13: 9781337349093)

Calculators: scientific calculator (suggested: TI-36X Pro)

Website: CUNY Blackboard `http://bbhosted.cuny.edu`

Grading:

Homework assignments will be assigned are to be turned in. *Your lowest Homework will be dropped.* Homework assignments will assist in understanding the material but will NOT be sufficient to learn this material well. You should be doing many more problems.

Term Tests :

There will be two in-class term tests. If you miss a test, you must contact me within 24 hours should you wish to have your absence excused. A doctor's note is needed to justify illness. Any student with a *justified* absence during a test will be given a make up exam. You are responsible for the material in the course readings in addition to any material and announcements made during lecture, regardless of whether or not you were in attendance.

Homework	25%
Test 1	20%
Test 2	20%
Final Exam	35%

Support Services: Math Tutoring Lab: CP 303.

SECTION	TOPIC	SUGGESTED EXERCISES
1.1	What is statistics?	10/1-15
1.2	Random samples	18/ 1-3, 8-20
1.3	Introduction to Experimental Design	29/ 1,2, 5-11
2.1	Frequency distributions, Histograms	52/ 1-10, 15-20
3.1	Mode, Median, Mean	95/ 1, 2, 5-7, 12-28
3.2	Measure of Variation	111/ 1-21
3.3	Percentiles, Box-Whisker Plots	127/ 1-11
4.1	Scatter Diagrams, Linear Correlation	154/ 1-18
4.2	Linear Regression, Coefficient of Determination	171/ 1-18
5.1	What is Probability?	198/1-4, 7-20
5.2	Probability Rules	215/1-8, 11-31
6.1	Intro to Random Variables, Probability Distributions	248/1-3, 6-18
6.2	Binomial Probabilities	264/ 1-27
6.3	Additional Properties of Binomial Distribution	274/ 1-8, 11-22
7.1	Graphs of Normal Probability	297/1-11
7.2	Standard Units, Area under Standard Normal Distributions	309/1-50
7.3	Areas Under any Normal Curve	321/1-30
7.4	Sampling Distributions	331/1-9
7.5	Central Limit Theorem	339/1-20
7.6	Normal Approximation to Binomial Distribution	350/ 1-21
8.1	Estimating μ when σ is known	377/ 1-25
8.2	Estimating μ when σ is unknown	390/1-22
8.3	Estimating p in the Binomial Distribution	403/1-27
9.1	Intro to Statistical Tests	432/ 1- 24
9.2	Testing the *mean* μ	447/ 1-24
9.3	Testing a *proportion* p	458/ 1-24