

MTH 23, Probability and Statistics, Spring 2016

Bronx Community College, CUNY.

Section D16, MW 14:00-15:15, Language Hall 32

Instructor: Mehdi Lejmi.

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Office Hours: Tuesday 15:00-17:00 or by appointment.

Textbook: *Understanding Basic Statistics*, by Brase&Brase, Brooks/Cole, Cengage Learning. 6th ed., ISBN 978-1-111-99009-1.

Syllabus:

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.

Grading:

Homework assignments will be assigned but are NOT to be turned in. They are for your benefit and should be completed as if they were being submitted for evaluation. Quizzes will be given at the instructors discretion and will reflect the homework assignments. Quizzes will be held during the last 10-15 min of class. *No make-up quizzes will be given. Your lowest quiz will be dropped.*

Term Tests :

There will be two in-class term tests. *No make-up exams will be given.* 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 have his or her (*uncurved*) final exam grade count in place of the missed test. 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.

All grades will be assigned by the standard 10-point scale. Pluses and minuses will be assigned at instructor's discretion.

Quizzes	25%
Test 1 - March 2	20%
Test 2 - April 6	20%
Final Exam	35%

Resources:

Math Tutoring Lab: <http://fsw01.bcc.cuny.edu/mathdepartment/tutoringlab/lab.htm>

Tentative For Daily Syllabus:

SECTION	TOPIC	PAGE/SUGGESTED EXERCISES
1.1	What is statistics ?	10/1-13
1.2	Random samples	18/ 1-16
2.1	Frequency distributions, Histograms	50/ 1-16
3.1	Mode, Median, Mean	89/ 1-24
3.2	Measure of Variation	104/ 1-21
4.1	Scatter Diagrams, Linear Correlation	144/ 1-18
5.1	What is Probability?	183/1-18
5.2	Probability Rules	199/1-29
6.1	Intro to Random Variables, Probability Distributions	230/1-16
6.2	Binomial Probabilities	243/ 1-27
6.3	Additional Properties of Binomial Distribution	253/ 1-20
7.1	Graphs of Normal Probability	273/1-11
7.2	Standard Units, Area under Standard Normal Distributions	284/1-50
7.3	Areas Under any Normal Curve	296/1-30
7.4	Sampling Distributions	305/1-9
7.5	Central Limit Theorem	312/1-20
7.6	Normal Approximation to Binomial Distribution	322/ 1-22
8.1	Estimating μ when σ is known	346/ 1-25
8.2	Estimating μ when σ is unknown	357/1-22
8.3	Estimating p in the Binomial Distribution	370/1-27
9.1	Intro to Statistical Tests	399/ 1- 24
9.2	Testing the <i>mean</i> μ	414/ 1-24
9.3	Testing a <i>proportion</i> p	425/ 1-24

Complaint Procedure:

If you have any problems with the course, please come and talk to me. Most issues can be resolved with a straightforward discussion.