Math 23-Probability and Statistics
Bronx Community College, CUNY
Section D03, FALL 2021
Monday 4pm - 5:15pm, Online (ZOOM) and Wednesday 4pm - 5:15pm, CP 309.

Instructor: Mehdi Lejmi
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Office: CP 319
Office Hours: Monday-Wednesday: 2pm-3pm or by appointment (ZOOM)

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.

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

Classes: We will have meetings at the assigned time on Monday online on ZOOM. To join the class please enter the following URL in your browser address:

https://zoom.us/my/math.bcc.lejmi

or

https://zoom.us/j/8479544062

Both are the same room meeting. The meeting ID is 847 954 4062. You can also dial 646-558-8656 and then enter the meeting ID 847 954 4062 to join the class. To access your CUNY ZOOM account, please enter the following URL in your browser address: https://cuny.zoom.us and then login using your CUNYFirst Credentials. If you need any help with ZOOM please email me. On Wednesday, we will have in person meetings (there is a possibility that this course may be converted to fully online if the need arises).

Online Board: As a board we will use Limnu.com.

Website (CUNY blackboard): http://bbhosted.cuny.edu

Calculators: Scientific calculator (suggested: TI-36X Pro).

Grading: Homework will be assigned and to be turned in approximately weekly.

Please regularly check CUNY Blackboard for announcements regarding Exams/Homework/Quizzes. Homework will be given at the instructor's discretion. Your lowest Homework/quizz 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.

There will be two term tests. *No make-up tests 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.

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

Office hours: I will be available in our ZOOM meeting room:

https://zoom.us/my/math.bcc.lejmi

or

https://zoom.us/j/8479544062

during the office hours. You can also send me an email for an appointment.

Accommodations/Disabilities: BCC respects and welcomes students of all backgrounds and abilities. In the event you encounter any barrier(s) to full participation in this course due to the impact of a disability, please contact DisAbility Services as soon as possible this semester. A Disability Services specialist will work with you to review the barriers you are experiencing and explain the eligibility process for establishing academic accommodations for this course. You can reach DisAbility Services by email at disabilityservices@bcc.cuny.edu or by phone at 718-289-5874. You may also reach DisAbility Services through Microsoft Teams. Download the Teams app, login using your CUNYfirst login, and join the DSO Student Service Center team using the following access code: neewu66.

Academic Integrity: Academic dishonesty (such as plagiarism and cheating) is prohibited at Bronx Community College and is punishable by penalties, including failing grades, dismissal and expulsion. For additional information and the full policy on Academic Integrity, please consult the BCC College Catalog.

Recording of Remote Classes: Students who participate in this class with their camera on or use a profile image are agreeing to have their video or image recorded solely for the purpose of creating a record for students enrolled in the class to refer to, including those enrolled students who are unable to attend live. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live."

Resources: Math Tutorial Lab Tutoring Support: Please visit this URL address for informations

http://www.bcc.cuny.edu/academics/academic-departments/mathematics-and-computer-science-department/academic-advising-tutoring-support-services/

Tentative Schedule:

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