



Stella and Charles Guttman Community College
50 W 40th Street, New York, NY
Math 103 – Statistics | Fall 1 2024 | Torres

Instructor	Camila Torres
Office Hours	Fridays 10:00 - 11:00 a.m. Blackboard Collaborate
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Social Media	Instagram: @statswithtorres @guttmanfaculty Website: http://www.statswithtorres.com YouTube: @statswithtorres

Course Section	Day(s)	Time	Credits/Hours	Room Number
MATH 103-03 [45544]	M,R,F	4:45-6:15 PM	3.0	409B

Catalog Description

MATH 103A and MATH 103B are a yearlong version, offered in two sequential parts of MATH 103 Statistics. Successful completion of MATH 103A Statistics A and MATH 103B Statistics B satisfies the CUNY Pathways requirement in Mathematics and Quantitative Reasoning.

Course Overview:

This course will provide students with an in-depth understanding of the fundamental concepts and computational methods of statistics. These concepts will be developed through the question of how to estimate an unknown quantity using sample data. Students will learn to incorporate the foundational concepts of mathematics with statistical analysis to describe and solve real-life problems and questions. Students will be taught to use estimation and precision and will learn the math study skills to assess and enhance their learning, their processes and their results. Students will use statistical software, graphing calculators, or Microsoft Excel to carry out a semester-long project involving data description and analysis. Students will work collaboratively and write using appropriate mathematical and non-mathematical language in order to successfully complete their project.

The topics addressed include: displaying categorical data using tables, bar graphs, and circle graphs; drawing conclusions about categorical data; displaying quantitative data using dot plots, stem-and-leaf plots, histograms and box-and-whisker plots; describing data distributions using measures of center (mode, mean, and median) and measures of spread (standard deviation, range and IQR); Displaying bivariate data using scatterplots; analyzing bivariate data using linear regression; elementary probability; normal probability distributions, sampling distributions; confidence intervals and hypothesis testing of the proportion and the mean.

Prerequisites: None;

CUNY Pathways Category: Completion of both MATH 103A and MATH 103B satisfies the category Mathematics and Quantitative Reasoning.

Course Learning Outcomes:

Upon successful completion of this course, you will be able to do the following:

- Correctly and efficiently carry out statistical calculations both with and without electronic devices. (MATH 103A and MATH 103B)

- Accurately depict data (with and without electronic devices) in an assortment of appropriate graphical forms. (MATH 103A)
- Accurately read information from a graphical depiction of a data set, then interpret and make predictions from their readings. (MATH 103A)
- Demonstrate an understanding of how statistical inference is based on probability. (MATH 103B)
- Correctly calculate probabilities according to empirical and theoretical models of probability. (MATH 103A and MATH 103B)
- Correctly construct and accurately interpret confidence intervals. (MATH 103B)
- Properly set up hypothesis tests and accurately interpret the results. (MATH 103B)
- Successfully design and carry out a project involving sample data and statistical data analysis. Employing appropriate statistical language, correct Standard English, and illustrative graphical depictions, they will report in writing on their project in a manner understandable to their peers. (MATH 103A and MATH 103B)

Required Text:

Illowsky, B., Dean, Susan. *Introductory Statistics*. Texas, Houston: OpenStax. Download for FREE at <https://openstax.org/details/books/introductory-statistics>

Required Materials and Technology:

You must have access to the Internet to view/hear course materials. The video and PowerPoint presentations, links to articles, assignments, quizzes, and rubrics are located on the Blackboard site for the course. To participate in learning activities and complete assignments, you will need:

- o Access to a working computer that has a current operating system with updates installed, plus speakers or headphones to hear lecture presentations (transcripts provided);
- o Reliable Internet access and a Guttman email account;
- o A current Internet browser that is compatible with Blackboard (Google Chrome is the recommended browser for Blackboard);
- o Microsoft Word as your word processing program; and
- o Reliable data storage for your work (e.g., USB drive, Dropbox, Google Drive, Office365 OneDrive)
- o Internet access
 - Blackboard
 - YouTube
 - [Geogebra.org](https://www.geogebra.org)
- o MS Excel™ or Google Sheets
- o Calculator ([Desmos](https://www.desmos.com), [Google Calculator](https://www.google.com/calculator))

Course Format

This class is an in-person course that meets three times per week. All class meetings are required.

Additionally, you are responsible for completing all coursework and assignments associated with the course outside of the scheduled meeting time. The college and your professors will respond to health and safety guidelines throughout the semester to make sure you have the most safe and best possible learning experience. **It is important that you check your Guttman email every day for announcements and updates about when and where you will meet with your class.**

Course Materials

Course materials are available via Blackboard (BB) and all class assignments will be submitted through Blackboard. Regular internet access is essential for successful completion of the course. If you have concerns about access to technology or internet, please contact the Office of Student Engagement at Dean.OSE@guttman.cuny.edu so that they can assist you.

If you need a laptop to complete your coursework, please reach out to IT directly. The link to the student laptop loan resources can be found here: [– Technology and Internet Services Guttman Community College](#)

Expectations for Communication

Instructor/student direct communications. I will be communicating with you regularly regarding grades and assignments and announcements will be posted to this course whenever necessary. Emails will be our main method of communication. Your email is also linked to the course Blackboard. Therefore, you will be expected to check your emails (i.e., guttmanmail.cuny.edu email) and Blackboard daily. It is your responsibility to ensure that your email account works properly in order to receive email.

Please check your email on Blackboard. To do so you can follow these easy steps:

1. Access Blackboard
2. Click your name on the main Blackboard navigation panel on the left
3. Review your email address.

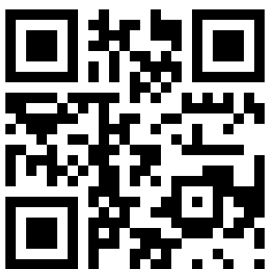
If you need to get in touch with me, the best method is via email. I will reply to emails within 24 -48 hours and will provide feedback on final drafts of submitted assignments within one week. You may also post questions pertaining to the course on the Blackboard Discussion Board. These questions will be answered within 24-48 hours.

If you are having trouble with this course or its material, you should contact me via email to discuss the issues. When writing to me via email, please use your Guttman email.

Social media communication support. All videos are on the [Stats with Torres YouTube channel](#) so you may subscribe and be notified when new videos are available. This channel also has an Instagram account [@statswithtorres](#) which posts important updates (e.g., announcements, reminders, new videos, exam dates, etc.). For general important information from all the faculty, follow [@guttmanfaculty](#) on Instagram.

Text alerts. Text alerts are sent out 1-2 times a week for announcements and reminders. You may sign up for optional text alerts by texting REGSTATS to 877-755-1917 (regular text message fees apply; you may cancel at any time).

Alternatively, you may subscribe using the following QR code.



iPhone users:

- Open the camera on your iPhone and hover over the entire QR code.
- You will receive a prompt to open your texting app.
- Tap the texting prompt and the app will open with a prepopulated message (REGSTATS).
- Hit send to subscribe.

Android phone users:

- Press and hold the home button and tap “lens”.
- Over the camera over the entire QR code.
- Tap the magnifying glass icon (at the bottom of your screen) to scan the QR code and it will direct you to open your texting app with a prepopulated message (REGSTATS).
- Hit send to subscribe.

Course Module Schedule

Each week will begin on a Monday and will end on a Sunday. You will complete one course module each week of the course.

Minimal Technical Skills Needed

Minimal technical skills are needed in this course. You must have consistent and reliable access to a computer and the Internet. Minimal technical skills include the ability to:

- Organize and save electronic files
- Use Guttman email and attached files
- Check email and Blackboard daily
- Download and upload documents
- Locate information with a browser

Technical Support

If you need access to a laptop, need support or have any technology, IT-related questions including about Blackboard, please contact the Help Desk and submit an online request at helpdesk@guttman.cuny.edu. The Help Desk is open Monday – Friday from 8:00 AM – 6:00 PM. If you need Blackboard help outside of these hours, you can contact Blackboard support at: 646-664-2024 or go to [Help/Support – The City University of New York](#)

If you do not have regular, reliable access to the internet, please contact Dean.OSE@guttman.cuny.edu so they can assist you.

General Support

Learning in this format at this time is a challenge for all of us. Any student who has difficulty affording groceries or accessing sufficient food to eat every day, or who lacks a safe and stable place to live, or needs mental health support and believes this may affect their performance in this course is urged to visit the Guttman [Essential Information for Personal Well Being](#) website for support and to email the Dean of Students at Dean.OSE@guttman.cuny.edu. Please use these resources for support and let your instructor know if we can support in any other ways.

COVID Related Policies and Procedures

Course Policy on Illness

If you are not feeling well, do not come to campus. If you are staying home due to illness, email your professors and they will provide you with accommodations to complete your coursework remotely.

If you are COVID positive or think you may have been exposed to COVID-19, do the following:

- If you are on campus, go home and call your health provider.
- Contact Elie Yoesoep, our Campus Coronavirus Liaison and report your status:
Elie.Yoesoep@guttman.cuny.edu
- Follow the advice of your health professional and Elie about your presence on campus (when you can return to class, if you need to quarantine, isolate, etc.).
 - Follow the advice of your health professional and Elie about your presence on campus (when you can return to class, if you need to quarantine, isolate, etc.).
 - All reports of COVID exposure on campus will result in contact tracing and you will be notified if you have been exposed and given guidance on if you must quarantine and when you can return to campus.

Course Assignments, Grading, and Grading Distribution

Item	Course Grade Percentage	Rationale & Description
Attendance	5%	It is expected that students attend all 36 in-person classes. However, to accommodate emergencies and illness, students will be allowed to miss two (2) class sessions without penalty.

		The classroom door shuts at the start of class and will reopen to allow late students into class after 15 minutes. Students that arrive more than 15 minutes late to class may not be permitted into the class. Students that have more than 3 absences and/or have missed more than one exam may receive a WU in the course.
Homework (i.e., Blackboard Quizzes)	20%	Each lecture video has Blackboard homework/quiz with 5-10 questions which will count as the homework grade. These questions are meant to reinforce the lesson's topics and to serve as formative assessment for the instructor. Students will have unlimited access to improve their homework scores for the length of the class.
Four (4) Module Exams	60%	Four (4) exams, consisting of multiple-choice questions, short answer questions and extended response questions. The exams will serve to measure your understanding of many skills within the chapter <u>and</u> their connection to skills and/or theories from the previous chapter. You will be given a test blueprint a week prior to the exam with exam topic and item information. Make-up tests will be available December 13 – December 16, 2023. Students that took the originally scheduled exam may also retest to improve their score during this time as well.
Three (3) Mini-Projects	15%	Students will complete 3 projects/extended to demonstrate their understanding of the entire statistical process. These projects will generally take 8-10 hours to complete. Instructions and scoring rubrics for each mini-projects are provided 2-3 weeks before the due date.
Total	100%	

Grade Distribution

Overall grades will be determined according to the [Guttman Community Colleges Grading Scale](#).

Transcript Grade	Range	Description of Performance
A+	97-100%	
A	93-96.9%	Excellent
A-	90-92.9%	
B+	87-89.9%	
B	83-86.9%	Good
B-	80-82.9%	
C+	77-79.9%	
C	73-76.9%	Satisfactory
C-	70-72.9%	
D+	67-69.9%	
D	60-66.9%	Passing
F/NC	0-59.9%	Failure/Unsuccessful completion of course

Incompletes are rarely given and will only be considered under the following circumstances:

- The student has completed most of the work for the course'
- The student is passing the course based on the work completed at the time the incomplete is requested,
- AND there are extenuating circumstances that prohibit the completion of the course.

If you have ceased to participate in a course but have not withdrawn officially, you may be deemed to have withdrawn unofficially. **The WU, by CUNY regulations, is equivalent to a grade of F.** Evidence of unofficial withdrawal includes:

- Ceased to complete coursework for extended periods of time (e.g, several weeks throughout the semester).
 - Please note Blackboard does record your login history. Cumulative times will be posted in the grade center for your reference.
- Have missed more than one (1) test by week 9

If you are unable to complete work because of an emergency (e.g., illness, family emergency), seek care or help immediately. You should request and/or retain documentation of the emergency for your own records. Contact me via email within 48 hours (or as soon as possible) to inform me there was an emergency – no details are necessary. I will reply with some information and suggest a time to discuss next steps.

Expectations for Exams

Course exams will be taken during class meetings and be submitted on Blackboard. Test blueprints will be posted on Blackboard one week prior to the exam. The blueprints will contain information about the topics and the types of test items (e.g., multiple choice, short answer, calculations, etc.). All exams will be open book and open note. If you require testing accommodations, please contact the Office of AccessABILITY using Starfish.

Late Work/Make-up Policy

Completing and submitting the homework/quizzes, exams, and mini projects by the due date is the sole responsibility of you. Please plan accordingly and complete these items in advance of their deadlines to ensure any unanticipated circumstances do not result in a missed assignment. User error does not qualify you for any kind of makeup or retake opportunity.

- All homework/quizzes are due by the deadline as posted on the course schedule and Blackboard.
However,...

- You may access the homework/quiz assignments an unlimited number of times until the last day of the semester.
- There is no point deduction for late homework/quizzes.
- The highest score on the quiz will be used in the gradebook.
- Failure to submit the assignment will result in a "zero."
- Exams and Mini Projects are due by the deadline posted on the course schedule and Blackboard.
 - There are NO EXTENSIONS ON EXAMS AND MINI-PROJECTS.
 - If you miss an exam, make-up tests will be available December 13-December 16, 2023. Students that took the originally scheduled exam may also retest to improve their score during this time as well
 - Be Careful: The clock on your computer may be different from the clock in Blackboard. If the clock is different by one second, you will be locked out of the exam or mini project. I recommend that you submit your assignments, quizzes, and exams well before the deadline.

Policies and Procedures

All registered students are expected to follow all Guttman and CUNY rules and regulations, in particular the [Code of Conduct](#), [Academic Integrity Policy](#), [Sexual Misconduct Policy](#), and [CUNY's Policy on Acceptable Use of Computer Resources](#) during the period of distance learning and online instruction. Any student found to be in violation of these policies can face disciplinary action.

Policy on Academic Honesty

Guttman Community College considers intellectual honesty to be the cornerstone of all academic and scholarly work. GCC views any form of academic dishonesty as a serious matter and requires all instructors to report every case of academic dishonesty to its Academic Integrity Officer, who keeps records of all cases. All work submitted or posted by students in this course must be their own. Submission of writing or ideas which are not the original work of the student, or which is not adequately referenced, is considered plagiarism. Unintentional plagiarism is still plagiarism, so if you have any question about whether to acknowledge a source, acknowledge it. And if you are still uncertain, be sure to ask. Refer to Article II of your Student Grievance Procedures for further details on academic honesty and Guttman's academic integrity procedures, at [Academic Policies URL link] Penalties for academic dishonesty include academic sanctions, such as failing or otherwise reduced grades, and/or disciplinary sanctions, including suspension or expulsion.

Disability Support Services

In compliance with the American Disability Act of 1990 (ADA) and with Section 504 of the Rehabilitation Act of 1973, Guttman Community College is committed to ensuring educational parity and accommodations for all students with documented disabilities and/or medical conditions. It is recommended that all students with documented disabilities (Emotional, Medical, Physical and/ or Learning) consult the Office of AccessABILITY to secure necessary academic accommodations. For further information and assistance please call 646-313-8061 or speak to your Student Success Advocate or Career Strategist

Starfish

Starfish is a communication tool for students, faculty, advisors, and many academic support and student service areas at Guttman. Instructors and advisors will use Starfish to provide you with feedback about your progress. Throughout the semester, you may receive emails or text messages regarding your academic performance and referrals to specific campus resources, such as peer mentors or tutors. Starfish features allow students to ask questions by using the "Raise Your Hand" and to make appointments with your advisor or with other service areas. To access Starfish, log into my.guttman.cuny.edu and click the Starfish icon on the left side of the page. If you need help using Starfish, you can speak to your advisor.

Attendance Policy

Success in this course is dependent on your active participation throughout the course. You are expected to attend the class sessions each week and arrive on time. The classroom door shuts at the start of class and will

reopen to allow late students into class after 15 minutes. Students that arrive more than 15 minutes late to class may not be permitted into the class.

Additionally, students must log into Blackboard several times a week, and complete course assignments. Even if your work is completed, you still need to login to ensure that you have seen all announcements, etc. It is your responsibility to check updates related to the course.

Class Conduct/Netiquette/Viewpoint Tolerance

Some of the issues covered during the seminar may evoke strong emotions. Students, faculty, and staff must be able to disagree respectfully with others on topics that are personally very important to them. Civility is essential to all scholarly discourse.

Professionalism will be expected at all times, but most especially with your interactions online. Because the university classroom is a place designed for the free exchange of ideas, we must show respect for one another in all circumstances. Please exhibit patience and courtesy in our exchanges with one another. Thoughtful language and restraint from verbal attacks upon those whose perspectives differ from your own is a minimum requirement. Courtesy and respect is the norm for those who participate in my class.

Our discussion board is a way for you to share your ideas and learning with your colleagues in this class. We do this as colleagues in learning, and the Discussion Board is meant to be a safe and respectful environment for us to conduct these discussions.

Some Netiquette Rules:

- Treat one another with respect. It will be expected that we will not attack one another personally for holding different opinions.
- Do not use all CAPITAL LETTERS in emails or discussion board postings. This is considered "shouting" and is seen as impolite or aggressive.
- Begin emails with a proper salutation (Examples: Dr. Name; Ms. Name; Hello Professor Name; Good afternoon Mr. Name). Starting an email without a salutation or a simple "Hey" is not professional.
- When sending an email, please include a detailed subject line. Additionally, make sure you reference the course number (Ex. ENGL 287) in the message and sign the mail with your name.
- Text messaging language is not acceptable.
- Re-Read, think, and edit your message before you click "Send/Submit/Post."

Please remember when posting to be respectful and courteous to your colleagues, and limit your posts to discussions of this course and its assignments.

Expectations of the Instructor

I am expected to facilitate learning, answer questions appropriately, be fair and objective in grading, provide timely and useful feedback on assignments and treat you as I would like to be treated. Additionally, as another person enduring these difficult circumstances, I am here to support you and help allocate the resources you need to be safe and healthy so you can learn.

OTHER IMPORTANT DATES:

The information on the official academic calendar is subject to change. Check the [Guttman website](#) regularly for changes. For definitions of withdrawal grades, please visit the [Guttman website](#)

September 2023

- **Friday, September 8, 2023:** Classes begin
- **Wednesday, September 13, 2023:** Last day to drop with 75% tuition refund.
- **Thursday, September 14, 2023:** Last day to add/swap a course.
- **Thursday, September 14, 2023:** Starfish Communication Survey Due
- **Friday, September 15, 2023:** WD assigned to students officially dropping a course
- **Friday, September 15, 2023:** No Classes Scheduled
- **Saturday, September 16, 2023:** No Classes Scheduled
- **Sunday, September 17, 2023:** No Classes Scheduled
- **Tuesday, September 19, 2023:** : Last day to drop with 50% tuition refund
- **Sunday, September 24, 2023:** Last day to drop with 25% tuition refund
- **Sunday, September 24, 2023:** Verification of Enrollment submitted to registrar
- **Sunday, September 24, 2023:** Last day to receive a WD
- **Sunday, September 24, 2023:** No Classes Scheduled
- **Monday, September 25, 2023:** No Classes Scheduled
- **Monday, September 26, 2023:** W assigned to students officially withdrawing from the course.
- **Monday, September 26, 2023:** WN assigned to students who are withdrawn from course by instructor.
- **Wednesday, September 27, 2023:** First Starfish progress survey due

October 2023

- **Monday, October 9, 2023:** WA assigned for immunization non-compliance
- **Monday, October 9, 2023:** No Classes Scheduled
- **Tuesday, October 10, 2023:** Classes follow Monday schedule
- **Wednesday, October 18, 2023:** Second Starfish progress survey due
- **Monday, October 23, 2023:** No Classes Scheduled
- **Tuesday, October 24, 2023:** No Classes Scheduled

November 2023

- **Wednesday, November 22, 2023:** No Classes Scheduled
- **Thursday, November 23, 2023:** No Classes Scheduled
- **Friday, November 24, 2023:** No Classes Scheduled
- **Saturday, November 25, 2023:** No Classes Scheduled
- **Sunday, November 26, 2023:** No Classes Scheduled

December 2023

- **Monday, December 11, 2023:** Last day to withdraw from a class with a grade of "W".
- **Tuesday, December 12, 2023:** Last day of Fall 1 Weekday Classes
- **Thursday, December 13 – Monday, December 16, 2023:** Final Exams and Culminating Course Experiences
- **Monday, December 18, 2023:** End of Fall 1 semester
- **Wednesday, December 20, 2023:** Grades due.

Weekly Calendar (Topics be subject to change at the discretion of the instructor)

This statistics section covers descriptive and inferential statistics in 12 weeks (i.e., 36 meetings for 54 hours). In other words, it is a fast-paced course. Therefore, it requires a strong commitment - both in class and out of class - to succeed. Every week, I will send you an email with a weekly summary for in-class meetings and Blackboard homework assignments.

Monday Date	Week	Guiding Question & Topic(s)	Important Exam & Mini-Project Dates
September 4	First Class	Welcome to Statistics Introductions, Syllabus, & Program Sign-ins	VOE Assignment
September 11*	Week One	What is statistics? The Statistical Process & Experimental Design	
September 18	Week Two	How is data alike and how is data different? Measures of Center & Variability	Exam One Blueprint Available
September 25	Week Three	How do measures of center and variability affect the shape of a distribution? Checking Normality Using Measures of Center & Variability	Exam One (September 29)
October 2	Week Four	The distribution is normal – now what? Probabilities Under the Normal Curve	Mini Project One Instructions & Rubric Available
October 9*	Week Five	What if I can't tell if the data is normal? The Central Limit Theorem and the Sampling Distribution	Exam Two Blueprint Available
October 16	Week Six	Now I do all this together?! Probabilities Under the Normal Curve with Sampling Distributions	Exam Two (November 3)
October 23	Week Seven	So, what's the truth? Inferential Statistics - Confidence Intervals	Mini Project One (Due November 12)
October 30	Week Eight	How is research conducted using statistics? Prepping for Null Hypothesis Statistical Testing (NHST)	Mini Project Two Instructions & Rubric Available
November 6	Week Nine	How do I know what to do or where to start? Hypothesis Tests for Proportions (z-and t-tests)	Exam Three Blueprint Available
November 13	Week Ten	How does NHST change when using means? Hypothesis Tests for Means (z-and t-tests)	Exam Three (December 1)
November 20*	Week Eleven	Why are NHST so similar but still so different? t-Distribution	Mini Project Two (Due December 10) Mini Project Three Instructions

			& Rubric Available
November 27	Week Twelve	<i>Why are NHST so similar but still so different? (cont.)</i> Two-Population Comparisons	
December 4	Make up Week	<i>What else is there?</i> Real-Life Statistics Discussion and Wrap-up	Exam Four Blueprint Available
December 11	Finals Week	<i>What can I do to improve my grade?</i> Exam Four, Make up/Retake Tests	Exam Four (December 16) Make-up Tests (December 13-16) Mini Project Three (Due December 16) Mini Project Two (Due December 11)
	Last Day of Semester	<i>What can I expect now that the semester is over?</i> Semester ends on December 18. Grades posted by December 20.	

Please note: There are several weeks when our class meets on a date where no classes are scheduled or our class meeting is scheduled on a different day. The last four course meetings make up for the dates that were missed during the semester.

These weeks for the following dates are also denoted with an asterisk (*) next to the date on the syllabus.

- **Friday, September 15, 2023:** No Classes Scheduled
- **Tuesday, October 10, 2023:** Classes follow Monday schedule
- **Wednesday, November 22, 2023:** No Classes Scheduled
- **Friday, November 24, 2023:** No Classes Scheduled