MATH 305: Statistics for Technology
Fall 2021 Course Syllabus

NJIT Academic Integrity Code: All Students should be aware that the Department of Mathematical Sciences takes the University Code on Academic Integrity at NJIT very seriously and enforces it strictly. This means that there must not be any forms of plagiarism, i.e., copying of homework, class projects, or lab assignments, or any form of cheating in quizzes and exams. Under the University Code on Academic Integrity, students are obligated to report any such activities to the Instructor.

COURSE INFORMATION

Course Description: An introduction to the modern concepts of statistics needed by engineering technologists. Topics include organization of data, descriptive statistics, discrete and continuous probability distributions, sampling distribution and designs, estimation -- one and two populations, tests of hypotheses.

Number of Credits: 3

Prerequisites: (Intended for students in Engineering Technology.) MATH 111 with a grade of C or better, or MATH 132 with a grade of C or better, or MATH 138 with a grade of C or better.

Course-Section and Instructors:

Course-Section	Instructor
Math 305-101	Professor G. Kariuki

Office Hours for All Math Instructors: Fall 2021 Office Hours and Emails

Required Textbook:

Title	*Elementary Statistics: A Step By Step Approach*
Author	Bluman
Edition	9th
Publisher	McGraw-Hill
ISBN #	978-0078136337

University-wide Withdrawal Date: The last day to withdraw with a **W** is **Wednesday, November 10, 2021**. It will be strictly enforced.

POLICIES

DMS Course Policies: All DMS students must familiarize themselves with, and adhere to, the Department of Mathematical Sciences Course Policies, in addition to official university-wide policies. DMS takes these policies very seriously and enforces them strictly.

Grading Policy: The final grade in this course will be determined as follows:

Homework and Quizzes	20%
Midterm Exam I	20%
Midterm Exam II	20%
Final Exam	40%

Your final letter grade will be based on the following tentative curve.

A	88 - 100	C	65 - 74
B+	84 - 87	D	55 - 64
B	79 - 83	F	0 - 54
C+	75 - 78		

Attendance Policy: Attendance at all classes will be recorded and is **mandatory**. Please make sure you read and fully understand the Math Department's Attendance Policy. This policy will be strictly enforced.

Homework Policy: Integrity – Your work is expected to be your own. Help from tutors, classmates etc is encouraged but you are responsible for mastering the material. Homework will be assigned at all classes.

Exams: There will be two exams during the semester and a cumulative final exam during the final exam week:

Midterm Exam I	Week 6
Midterm Exam II	Week 11
Final Exam Period	December 15 - 21, 2021

The final exam will test your knowledge of all the course material taught in the entire course. Make sure you read and fully understand the Math Department's Examination Policy. This policy will be strictly enforced.

Makeup Exam Policy: There will be **NO MAKE-UP QUIZZES OR EXAMS** during the semester. In the event an exam is not taken under rare circumstances where the student has a legitimate reason for missing the exam, the student should contact the Dean of Students office and present written verifiable proof of the reason for missing the exam, e.g., a doctor's note, police report, court notice, etc. clearly stating the date AND time of the mitigating problem. The student must also notify the Math Department Office/Instructor that the exam will be missed.

Cellular Phones: All cellular phones and other electronic devices must be switched off during all class times.

ADDITIONAL RESOURCES

Math Tutoring Center: Located in the Central King Building, Lower Level, Rm. G11 (See: Fall 2021 Hours)

Further Assistance: For further questions, students should contact their instructor. All instructors have regular office hours during the week. These office hours are listed on the Math Department's webpage for Instructor Office Hours and Emails.

Accommodation of Disabilities: The Office of Accessibility Resources and Services (OARS) offers long term and temporary accommodations for undergraduate, graduate and visiting students at NJIT.

If you are in need of accommodations due to a disability please contact Scott Janz, Associate Director of Disability Support Services at 973-596-5417 or via email at scott.p.janz@njit.edu. The office is located in Kupfrian Hall, Room 201. A Letter of Accommodation Eligibility from the Office of Accessibility Resources and Services office authorizing your accommodations will be required.

For further information regarding self identification, the submission of medical documentation and additional support services provided please visit the Office of Accessibility Resources and Services (OARS) website at:

https://www.njit.edu/studentsuccess/accessibility/

Important Dates (See: Fall 2021 Academic Calendar, Registrar)

Date	Day	Event
September 1, 2021	Wednesday	First Day of Classes
September 4, 2021	Saturday	Saturday Classes Begin
September 6, 2021	Monday	Labor Day
September 8, 2021	Wednesday	Monday Classes Meet
September 8, 2021	Wednesday	Last Day to Add/Drop Classes
November 10, 2021	Wednesday	Last Day to Withdraw
November 25 to November 28, 2021	Wednesday to Sunday	Thanksgiving Recess - Closed
December 10, 2021	Friday	Last Day of Classes
December 13 and December 14, 2021	Monday and Tuesday	Reading Days
December 15 to December 21, 2021	Wednesday to Tuesday	Final Exam Period

Course Outline

Week #	Chapter	Title

1	1, 2	Introduction, Frequency Distribution
2	2, 3	Graphs, Means
3	3	Variation, Standard Deviation, Box Plots
4	4	Probability, Sample Space
5	4	Counting Problems
6		**TEST 1**
7	5	Probability, Binomial Distribution
8	6	Normal Distribution
9	6	CLT, Binomial and Normal Distribution
10	7	Confidence Intervals, Proportions
11		**TEST 2**
12	8	Hypothesis Tests, Means
13	8, 9	Hypothesis Test, Proportions, Two Means
14	9	Hypothesis Test, Two Means
15		**FINAL EXAM: DEC 15 - 21, 2021**