

## MATH 107: University Mathematics BI

### *Summer 2022 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:** Linear functions, equations, inequalities, systems of linear equations, quadratic equations, elementary functions, graphing functions.

**Number of Credits:** 3

**Prerequisites:** None

**Course-Section and Instructors:**

Course-Section	Instructor
Math 107-FTF	Professor L. Barnes

**Office Hours for All Math Instructors:** [Office Hours and Emails](#)

**Required Textbook:**

A. Precalculus Version 3 Corrected	<a href="http://stitz-zeager.com/szprecalculus07042013.pdf">http://stitz-zeager.com/szprecalculus07042013.pdf</a>
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**University-wide Withdrawal Date:** Please see the [Summer 2022 Academic Calendar](#) for the last day to withdraw based on the summer session you are registered for.

### COURSE GOALS

#### Course Objectives

- Students should (a) improve their algebra skills engineering (b) learn about lines and slope,(c) understand many practical applications of systems of equations, (d) Students should gain an appreciation for the importance of trigonometry in scientific, engineering, and other applications., (e) learn about logarithmic and exponential functions and understand their real world applications.

#### Course Outcomes

- Students have improved logical thinking and problem-solving skills.
- Students have a greater understanding of the importance of algebra, trigonometry and logarithms and some real world applications.
- Students are prepared for General Calculus.

**Course Assessment:** The assessment of objectives is achieved through homework, quizzes, and 3 examinations.

## 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	15%
Quizzes/Class Participation	15%
Midterm Exam	30%
Final Exam	35%

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

A	90 - 100	C	65 - 74
B+	85 - 89	D	55 - 64
B	79 - 80	F	0 - 54
C+	75 - 79		

**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. Attending online conferences and submitting the video assignments will count toward attendance.

**Homework:** Homework is an expectation of the course.

**Quiz Policy:** Quizzes will be given throughout the semester. They will be based on the video lectures, homework, and the canvas conferences.

**Exams:** There will be one midterm exam held during the semester and one comprehensive final exam. Exams are held on the following days:

Midterm Exam	TBA
Final Exam	August 15, 2022

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: **Summer 2022 Hours**)

**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: **Summer 2022 Academic Calendar, Registrar**)

<b>Date</b>	<b>Day</b>	<b>Event</b>
May 23, 2022	Monday	<b>Full, First, and Middle Summer Session Begins</b>
May 25, 2022	Wednesday	Last Day to Add/Drop for <b>First Summer Session</b>
May 27, 2022	Friday	Last Day to Add/Drop for <b>Middle Summer Session</b>
May 30, 2022	Monday	Last Day to Add/Drop for <b>Full Summer Session</b>
May 30, 2022	Monday	Memorial Day - University Closed/No Classes Scheduled
June 11, 2022	Saturday	Last Day to Withdraw from <b>First Summer Session</b>
June 17, 2022	Friday	Last Day to Withdraw from <b>Middle Summer Session</b>
June 27, 2022	Monday	Last Day of Classes for <b>First Summer Session</b>

July 1, 2022	Friday	Last Day to Withdraw from Full Summer Session
July 3, 2022	Sunday	Independence Day - University Closed/No Classes Scheduled
July 4, 2022	Monday	Independence Day - Holiday Observance/No Classes
July 5, 2022	Tuesday	Second Summer and FTF Session Begins
July 6, 2022	Wednesday	Last Day to Add/Drop for Second Summer and FTF Session
July 18, 2022	Monday	Last Day of Classes for Middle Summer Session
July 21, 2022	Thursday	Last Day to Withdraw for Second Summer Session
August 8, 2022	Monday	Last Day of Classes for Full and Second Summer Session
August 15, 2022	Monday	Last Day of FTF Session

## Course Outline

Lecture Date	Section #	Homework
7/6	1.1 and 1.2	1.1 #1, 3, 15, 20, 21, 23, 25, 29, 34 1.2 #1, 3, 11, 19, 41, 49
7/8	1.3 and 1.4	1.3 #1, 9, #13-18, 24, 25, 26, 27, 30, #33-35, 42, 43 1.4 #10, 11, 13, 20, 26, 27, 29, 31, 35, 38, 39, 40, 42, 44, 46, 67
7/11	1.5 and 1.6	1.5 #2, 17, 21, 23, 24, 29, 34, 49 1.6 #1, 2, 3, 5, 11, 12
7/13	1.6, 1.7	1.6 #13, 15, 19, #42-57 1.7 #19-23, #38, 41, 44, 45
7/15	2.1	2.1 #1, 2, 4, 11, 13, 15, 21, 23, 25, 30, 44, 46, 61, 63, 67, 70
7/18	8.1 and 2.3	8.1 #1, 3, 5, 7, 10, 11, 28 2.3 #1, 3, 4, 6
7/20	2.3, 3.1, 3.2	2.3 #23 3.1 #1, 3, 9, 13, 19 3.2 #1, 3, 7, 11, 12, 35
7/22	3.3 and 6.1	3.3 #1, 3, 5, 6 (use either method) 6.1 #1, 3, 9, 16, 17, 19, 26, 32, 35, 43, 44
7/25	6.2 and 6.3	6.2 #1-3, 10, 16, 19, 27, 29, 35 6.3 #1, 2, 3, 4, 11

7/27	6.3 and 6.4	6.3 #15, 27 6.4 #1-13, 22, 26
7/29	Exam 1	
8/1	10.1, 10.2	10.1 #9, 11, 13, 16, 17, 18, 19, 31, 33, 37, 38, 42, 43, 50
8/3	10.2	10.2 #1-13, 15, #21-24, #31-34 ( <i>just find solutions on <math>[0, 2\pi]</math></i> )
8/5	10.3	10.3 #1-6, #21-24, #43-46 ( <i>just find solutions on <math>[0, 2\pi]</math></i> )
8/8	10.5	10.5 #1-4, #6, #12
8/10	11.2, 11.3	11.2 #1, 5 11.3 #1, 2, 3
8/12	Review	
8/15	Final Exam	

*Updated by Professor Lauren Barnes - 06/17/2022  
Department of Mathematical Sciences Course Syllabus, Summer 2022*