



THE COLLEGE OF SCIENCE
AND LIBERAL ARTS

THE DEPARTMENT OF MATHEMATICAL SCIENCES

MATH 107: University Mathematics BI

Summer 2020 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 107-450	Professor T. Sherman

Office Hours for All Math Instructors: [Summer 2020 Office Hours and Emails](#)

Required Textbook:

A. Precalculus Version 3 Corrected	http://stitz-zeager.com/szprecalculus07042013.pdf
B. Active Preparation for Calculus	http://faculty.gvsu.edu/boelkinm/Home/APC/pdf/index.pdf

Withdrawal Date: Please see the [Summer 2020 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 common examinations with common grading.

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 and Video Assignments	20%
Midterm	30%
Final	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	80 - 79	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 Policy: Homework is an expectation of the course. Homework will be assigned online using the Webassign website.

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

Exams: There will be 1 common midterm exam held during the semester and 1 comprehensive common final exam. Exams are held on the following days:

Midterm Exam	June 17, 2020
Final Exam	July 13, 2020

Makeup Exam Policy: To properly report your absence from a midterm or final exam, please review and follow the required steps under the DMS Examination Policy found here:

- http://math.njit.edu/students/policies_exam.php

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, Room G11, See: ([Summer 2020 Hours](#))

Accommodation of Disabilities: Disability Support Services (DSS) 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 Chantonette Lyles, Associate Director of Disability Support Services at [973-596-5417](tel:973-596-5417) or via email at lyles@njit.edu. The office is located in Fenster Hall Room 260. For further information regarding self identification, the submission of medical documentation and additional support services provided please visit the Disability Support Services (DSS) website at:

- <https://www.njit.edu/studentsuccess/accessibility/>

Important Dates (See: [Summer 2020 Academic Calendar](#), Registrar)

Date	Event
May 18, 2020	First Day of Classes
May 18, 2020	Last Day to Add/Drop Classes for FIRST, MIDDLE, AND FULL
May 25, 2020	University Closed for Memorial Day
June 22, 2020	Last Day of FIRST SUMMER SESSION
June 29, 2020	First Day of FTF AND SECOND SUMMER SESSION
July 4, 2020	University Closed for Independence Day
July 13, 2020	Last Day of MIDDLE SUMMER SESSION
August 3, 2020	Last Day of FULL AND SECOND SUMMER SESSIONS
August 12, 2020	Last Day of FTF SUMMER SESSIONS

Course Outline

Lecture	Section # + Topic	
1	1.1 and 1.2	Linear Equations in One Variable and Quadratic Equations
2	1.4	Solving Other Types of Equations
3	2.1 and 2.2	Coordinate Plane Graphs of Functions
4	2.3	Lines
5	2.7	Transformations of Functions
6	3.1	Quadratic Functions
7	3.2	Polynomial Functions
8	3.3	Polynomial Division
9	4.1	Exponential Functions
10	4.2	Logarithmic Functions
11	4.3	Rules for Logarithms

12		Exam Review
13		Midterm Exam
14	4.4	Solving Logarithmic Equations
15	5.1	Angles and Their Measure
16	5.2	Right Triangle Trigonometry
17	5.3	Trigonometric Functions of Any Angle
18	5.4	Graphs of Sine and Cosine
19	6.5	Trigonometric Equations 1
20	7.1	Law of Sines
21	7.2	Law of Cosines
22	8.1	Systems of Linear Equations
23		Exam Review
24		Final Exam

*Updated by Professor T. Sherman - 4/28/2020
Department of Mathematical Sciences Course Syllabus, Summer 2020*
