



THE COLLEGE OF SCIENCE
AND LIBERAL ARTS

THE DEPARTMENT OF MATHEMATICAL SCIENCES

MATH 107: University Mathematics BI

Summer 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.

DMS Online Exam Policy Summer 2021: Exams will be proctored using both Respondus LockDown Browser+Monitor and Webex. Students will be required to join a Webex meeting from their phone with their cameras on, and to access the exam through LockDown Browser on a Mac or Windows PC with webcam. Students must follow all instructions related to environment checks and camera positioning.

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 107-040	Professor N. Mitrov

Office Hours for All Math Instructors: [Summer 2021 Office Hours and Emails](#)

Required Textbook:

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

Withdrawal Date: Please see the [Summer 2021 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%
Class Participation and Forum Discussions	20%
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	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 conferences.

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

Midterm Exam	June 21, 2021
Final Exam	July 19, 2021

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 2021 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 Chantonette Lyles, Associate Director of the Office of Accessibility Resources and Services at [973-596-5417](tel:973-596-5417) or via email at lyles@njit.edu. The office is located in Kupfrian Hall, Room 201. A Letter of Accommodation Eligibility from the Office of Accessibility Resources and Services 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 2021 Academic Calendar](#), Registrar)

Date	Event
May 24, 2021	First Day of Classes for FIRST, MIDDLE, AND FULL SUMMER SESSIONS
May 26, 2021	Last Day to Add/Drop Classes for FIRST SUMMER SESSION
May 28, 2021	Last Day to Add/Drop Classes for MIDDLE SUMMER SESSION
May 31, 2021	Last Day to Add/Drop Classes for FULL SUMMER SESSION
May 31, 2021	University Closed for Memorial Day
June 28, 2021	Last Day of FIRST SUMMER SESSION
July 4, 2021	University Closed for Independence Day
July 5, 2021	University Closed for Independence Day
July 7, 2021	First Day of FTF SUMMER SESSION
July 19, 2021	Last Day of MIDDLE SUMMER SESSION
August 2, 2021	Last Day of FULL SUMMER SESSION
August 16, 2021	Last Day of FTF SUMMER SESSION

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 N. Mitrov - 5/10/2021
Department of Mathematical Sciences Course Syllabus, Summer 2021*
