MATH 107: University Mathematics BI
Fall 2018 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 107-001	Professor S. Erfani
Math 107-007	Professor W. Ashraf
Math 107-013	Professor K. Horwitz
Math 107-017	Professor R. Obaisi
Math 107-019	Professor E. Gulistan
Math 107-027	Professor C.-C. Liou
Math 107-101	Professor V. Henry

Office Hours for All Math Instructors: Fall 2018 Office Hours and Emails

Required Textbook:

Title	*Precalculus Version 3 Corrected*
Author	Stitz and Zeager
Edition	Version 3, 2013
Publisher	Online
ISBN #	---
Website	http://stitz-zeager.com/szprecalculus07042013.pdf

University-wide Withdrawal Date: The last day to withdraw with a **W** is **Monday, November 12, 2018**. It will be strictly enforced.

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 logarithims and some real world applications.
- Students are prepared for their first course in 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	20%
Common Midterm Exam I	15%
Common Midterm Exam II	15%
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 - 84	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. Students are expected to attend class. Each class is a learning experience that cannot be replicated through simply "getting the notes." Attendance at all classes (both lecture and recitation) will be recorded and is mandatory.

Homework Policy: Homework is an expectation of the course. All homework for the semester is on the syllabus, by section, below. It is essential to hand in homework on time. Late homework will be assessed at a 50% penalty.

Online Homework: Online Homework assignments are to be completed using the homework portal called

WebAssign. The online assignments can be completed at www.webassign.net. You must purchase webassign online to get the initial access code to get into the class. In addition, on the first day of class your course instructor will give an additional code "Class key" needed to enroll to WebAssign. WebAssign gives you free access for two weeks after the start of class so there should be no delay in creating and registering your account.

Quiz Policy: As per each instructor, quizzes will be given throughout the semester. They will be based on the lecture, homework and the in-class discussions. There will be 6-10 assessments given throughout the semester.

Exams: There will be two common midterm exams held during the semester and one comprehensive common final exam. Each exam will test the material taught since the beginning of the semester. Exams are held on the following days:

Common Midterm Exam I	October 10, 2018
Common Midterm Exam II	November 14, 2018
Final Exam Period	December 15 - 21, 2018

The time of the midterm exams is **4:15-5:40 PM** for daytime students and **5:45-7:10 PM** for evening students. 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: 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 and put away during all class times.

ADDITIONAL RESOURCES

Math Tutoring Center: Located in the Central King Building, Lower Level, Rm. G11 (See: Fall 2018 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 or via email at lyles@njit.edu. The office is located in Fenster Hall Room 260. A Letter of Accommodation Eligibility from the Disability Support 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 Disability Support Services (DSS) website at:

- http://www5.njit.edu/studentsuccess/disability-support-services/

Important Dates (See: Fall 2018 Academic Calendar, Registrar)

Date	Day	Event
September 4, 2018	T	First Day of Classes
September 10, 2018	M	Last Day to Add/Drop Classes
November 12, 2018	M	Last Day to Withdraw
November 20, 2018	T	Thursday Classes Meet

November 21, 2018	W	Friday Classes Meet
November 22 - 25, 2018	R - Su	Thanksgiving Recess
December 12, 2018	W	Last Day of Classes
December 13 & 14, 2018	R & F	Reading Days
December 15 - 21, 2018	Sa - F	Final Exam Period

Course Outline

Lecture	Section	Topic	Assignment
1	1.1	Sets of Real Numbers and the Coordinate Plane	11-19, 22-26 evens,
2	1.2	Relations	41-52 odd
3	1.3	Introduction to Functions	1-4, 7-10, 15-22
4	1.4	Function Notation	11-17 odd, 37-51 odd, 63, 64, 68, 69
5	1.5	Function Arithmitic	1-9 odd, 22-26 even, 46-50
6	1.6	Graphs of Functions	1-12 evens, 13, 16, 42-56 evens
7	1.7	Transformations	1,5,8,9,21,24,29, 54-63
8	2.1	Linear Functions	11-15 odd, 21-25 odd, 29, 44-48 evens, 61-67 odd
9		**CATCH UP/REVIEW FOR EXAM 1**	
		EXAM #1	
10	8.1	Systems of Linear Equations	1-8
11	2.3	Quadratic Functions	2-8 evens, 10, 31-35
12	3.1	Polynomial Functions	1-10 odd, 21-25 odd, 33
13	3.2	Factor and Remainder Theorems	1-20 evens, 31-35 odd
14	6.1	Introduction to Exponential and Logarithmic Functions	1-4, 20-26 evens, 43-46
15	6.2	Properties of Logs	10-20 evens, 35, 38
16	6.3	Exponential Equations and inequalities	1-12 evens
17	6.4	Logarithmic Equations and Inequalities	1-15 odd
18		**CATCH UP/REVIEW FOR EXAM 2**	
		EXAM #2	
19	10.1	Angles and their Measure	9, 11, 18, 20, 33-40 evens, 52
20	10.2	Unit Circle	1-10, 31-34 (just find solutions in $0 £ q < 2p$)
21	10.2	Unit Circle Continued	21-24, 41, 43, 55, 57,
22	10.3	Six Circular Functions and Identities	1-8 odd, 21-24, 43-46(just find solutions in $0 £ q < 2p$)
23	10.5	Graphs of Trigonometric Functions (Just Sin/Cos)	1-6, 8, 12
24	11.2	Law of Sines	1-5, 24

25	11.3	Law of Cosines	1-3, 11-15 odd, 19
26		**CATCH UP/REVIEW FOR THE FINAL**	
		FINAL EXAM	