MATH 110: University Mathematics B II - Trigonometry
Spring 2019 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: Intended for students whose major requires MATH 111. Trigonometric functions and identities, laws of sines and cosines, logarithmic equations, systems of nonlinear equations, polar coodinates.

Number of Credits: 4

Prerequisites: MATH 108 or placement by performance on standardized entrance examinations.

Course-Section and Instructors

Course-Section	Instructor
Math 110-002	Professor C. Taylor
Math 110-004	Professor E. Gulistan
Math 110-010	Professor A. DeBarros
Math 110-016	Professor S. Erfani
Math 110-018	Professor A. DeBarros
Math 110-102	TBA

Office Hours for All Math Instructors: Spring 2019 Office Hours and Emails

Required Textbook:

Title	*Precalculus - A Right Triangle Approach*
Author	Ratti and McWaters
Edition	3rd
Publisher	Pearson
ISBN #	978-0321912794
Notes	w/ MyMathLab

University-wide Withdrawal Date:The last day to withdraw with a **W** is **Monday, April 8, 2019**. 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	15%
Common Midterm Exam I	15%
Common Midterm Exam II	20%
Common Midterm Exam III	20%
Final Exam	30%

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

A	90 - 100	C	70 - 74
B+	85 - 89	D	60 - 69
B	80 - 84	F	0 - 59
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."

Homework Policy: Homework is an expectation of the course. All homework for the fall session is listed, by section, below.

- *Hand-in Homework is Linked Here.*
- Online homework will be in My Math Lab sections listed will be in conjunction with your text.

Quizzes Policy: Quizzes will be given approximately once a week throughout the semester. They will be based on the lecture, homework and the in-class discussions. There will be 8-12 assessments given throughout the semester.

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

Common Midterm Exam I	February 13, 2019
Common Midterm Exam II	March 13, 2019
Common Midterm Exam III	April 24, 2019
Final Exam Period	May 10 - 16, 2019

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

Mandatory Tutoring Policy: Based upon academic performance indicating a significant gap in understanding of the course material, students may receive a notice of being assigned to mandatory tutoring to assist in filling the gap. A student will have 2 points deducted from the course average for each instance in which the required tutoring is not completed by the stated deadline.

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: Spring 2019 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: Spring 2019 Academic Calendar, Registrar)

Date	Day	Event
January 22, 2019	T	First Day of Classes
February 1, 2019	F	Last Day to Add/Drop Classes
March 17 - 24, 2019	Su - Su	Spring Recess - No Classes, NJIT Open
April 8, 2019	M	Last Day to Withdraw
April 19, 2019	F	Good Friday - No Classes, NJIT Closed
May 7, 2019	T	Friday Classes Meet/ Last Day of Classes
May 8 & 9, 2019	W & R	Reading Days
May 10 - 16, 2019	F - R	Final Exam Period

Course Outline

Click Here for Hand-in Homework

Lecture	Sections	Topics	Additional Practice Problems
1	P.1,P.2, P.3, P.4, P.6	Introduction to the course Algebra Review	Textbook Problems

2	P.5,1.1, 1.2,1.4	Algebra Review (cont'd)	Textbook Problems
3	4.1	Exponential Functions	4.1: 25,31,37,45- 49,51
4	4.2	Logarithmic Functions	4.2: 33,37,45,49,55,61,75,85,91
5	4.3	Rules of Logarithms	4.3: 13,15,33,41,67,69,89
6	4.4	Exponential and Log Equations	4.4: 21,29,33,39, 53-63 odd
7	5.1	Angles and their Measures	5.1: 9,13,35,39,55,57,61,65, 69,73,77
8		**APPLICATION 1:** **PULLEY SYSTEM PROJECT**	
9	5.2	Right Triangle Trigonometry	5.2: 7,9,17,27,33,39,43,49, 55,59,89
10		**CATCH UP AND REVIEW** **COMMON EXAM 1 - FEB. 13, 2019**	
11	5.3	Trigonometric Functions of any Angle	5.3: 19,23,65,75
12	5.3	Trigonometric Functions of any Angle	5.3: 44,47,57,88,89
13	5.4	Graphs of Sine and Cosine	5.4:24,45,52,56,569,70,79,87,91
14	5.5	Graphs of other Trig. Functions	5.5: 9,29,35,37
15	5.6	Inverse Trigonometric Functions	5.6: 9,11,17,21,27,33,35,37, 47,51,65,69,81,85
16	6.1	Verifying Identities	6.1: 13,23,25-35 odd,59,63,71,81,95,96, 97
17	6.2	Sum and Difference Formulas	6.2: 9,11,15,22,25,29,41,51, 63,113
18		**APPLICATION 2:** **ROLLING WHEEL PROBLEM**	
19	6.3	Double Angle/Half Angle Formulas	6.3: 7,13,23,33,35,37,45,47,55,57,59, 91
20		**CATCH UP AND REVIEW** **COMMON EXAM II - MAR. 13, 2019**	
21	6.5	Trig Equations I	6.5: 7-15 odd,17,23,46,47,52, 55,61,67, 67,77,81
22	6.6	Trig Equations II	6.6: 7-25 odd,59,85
23	7.1	Law of Sines	7.1: 17, 21-29 odd,61 (HW may require calculator)
24	7.2	Law of Cosines	7.2: 9,11,18,19,35 (HW may require calculator)
25	7.3	Areas of Polygons Using Trigonometry	7.3: 5,7,27,35 (HW may require calculator)
26		**CATCH UP AND REVIEW**	
27	2.2	Circles	2.2: 71,75,77,79,81,85
28	10.3	The Ellipse	10.3: 13,19,27,31,41,45,49
29	7.6	Polar Coordinates	7.6: 13,19,25,29,31,37,43,46, 49,51
30	7.6	Polar Coordinates	7.6: 57,61,63,65,67,71,73
31	8.1	Systems of Linear Equations in Two Variables	8.1: 39,45,51,55,57,69,71, 95, 99
32	8.2	Systems of Linear Equations in Three	8.2: 9,11, 23, 29

		Variables	
33		**CATCH UP AND REVIEW** **COMMON EXAM III – APR. 24, 2019**	
34	8.3	Partial Fraction Decomposition	8.3: 17,19,21,25,39
35	8.3	Partial Fraction Decomposition	8.3: 59,61,69
36	8.4	Systems of Non-Linear Equations	8.4:15,21,31,41,45,65,69
37	9.1	Matrices and Systems of Equations	9.1: 11,15,19,23,29,31,49,55, 59,63,71
38	9.2	Matrix Algebra	9.2: 11,17,23,27,31,33,37
39		**CATCH UP AND REVIEW**	
40		**FINAL EXAM**	**FINAL EXAM WEEK: MAY 10 – 16, 2019**
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