

MIDDLESEX COUNTY COLLEGE
EDISON, NEW JERSEY

MATHEMATICS DEPARTMENT

Date: June 17, 2009

Course Title: Precalculus (Part B)

Course No. MAT 129B

Class Hours: 2

Recitation Hours: 1

Credit Hours: 2

Department Head Approval: _____
Maria DeLucia, Ph.D.

Dean Approval: _____
Reginald Luke, Ph.D.

Prerequisite:

MAT 129A or equivalent courses.

Textbook of Course:

Author: Larson, Hostetler
Title: Precalculus: A Graphing Approach, 5th edition
Publisher: Cengage Learning

Supplies:

TI 84; TI 83Plus, or TI Inspire Graphing Calculator required.

Catalog Course Description:

Emphasis on those topics from algebra and trigonometry that best prepare student for the first course in calculus. The areas of study are algebraic and transcendental functions and their graphs. Of special interest are polynomials, rational, exponential, logarithmic, and trigonometric functions. Additional topics include vectors, polar coordinate systems, matrices, and determinants.

Objectives of the Course:

1. To acquire the working knowledge of college algebra needed for later study and work.
2. To use a scientific graphing calculator, computer software, and other resources as problem solving tools.
3. To develop awareness of the contributions of mathematicians from various cultures and countries.

This outline leaves time for a review session before the final exam (last class meeting) and at least 3 hourly tests.

The syllabus represents the basic minimum to be covered by an instructor.

DAY BY DAY OUTLINE - MAT 129B

<u>DAY</u>	<u>SECTION</u>	<u>TOPIC</u>
1	Review functions	
2	Review inverse functions	
3	4.1	Exponential Functions and Their Graphs
4	4.2	Logarithmic Functions and Their Graphs
5	4.3	Properties of Logarithms
6	4.4	Solving Exponential and Logarithmic Equations
7	4.5	Exponential and Logarithmic Models
8	Review Test 1	
9	Test 1	
10	5.1	Radian and Degree Measure
11	5.2	Right Triangle Trigonometry
12	5.3	Trigonometric Functions: The Unit Circle Trigonometric Functions of Any Angle
13	5.4	Graphs of Sine and Cosine Functions
14	5.5	Graphs of Other Trigonometric Functions
15	5.6	Inverse Trigonometric Functions
16	5.7	Applications and Models
17	Review Test 2	
18	Test 2	
19	6.1	Using Fundamental Identities
20	6.2	Verifying Trigonometric Identities
21	6.3	Solving Trigonometric Equations
22	6.4 – 6.5	Sum and Difference Formulas Multiple-Angle and Product-to-Sum Formulas
23	7.1	Law of Sines
24	7.2	Law of Cosines
25	Review Test 3	
26	Test 3	
27	Review Final Exam	
28	Final Exam	