

MIDDLESEX COUNTY COLLEGE
EDISON, NEW JERSEY

MATHEMATICS DEPARTMENT

Date: August 15, 2008

Course Title: Freshman Mathematics I

Course No.: MAT 101

Class Hours: 3

Laboratory Hours: 0

Credit Hours: 3

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

Dean Approval: _____
Reginald Luke, Ph.D.

Prerequisite: Appropriate score on the College Placement test, or MAT 013, or departmental approval.

Textbook of Course:

Author: Angel, Abbott, Runde

Title: A Survey of Mathematics with Applications, Expanded 8th Edition

Publisher: Addison-Wesley

Catalog Course Description:

The first half of a two-semester course designed primarily for liberal arts students planning a year's study of college level mathematics. Survey topics include: Inductive Reasoning, problem solving, Set concepts, Venn Diagrams and applications, Geometry, Consumer math, Simple and Compound Interest, Installment Buying and Mortgages.

Objectives of Course:

The student shall:

1. Learn problem-solving strategies and develop communication skills.
2. Master the skills of reasoning and estimating as aid in problem solving.
3. Put elements into sets in order to deal with large quantities of information.
4. Understand geometric objects that affect our lives.
5. Understand personal financial management, including savings, loans, investments and mortgages.
6. Apply this knowledge to solving real world problems.

Goals:

This course is intended to meet the minimum requirements for college mathematics in the hopes of developing an understanding and appreciation of the role of mathematics in the modern world.

Requirements:

Students are required to use the **TI-30X IIS** calculator. No calculators should be shared and no cell phones can be used during tests.

Teachers are expected to use the Internet/Research Activities and Group Projects at the end of each section or chapter. Research Activities for 11.2 and 11.3 are strongly suggested.

COURSE OUTLINE

Day	MATERIAL COVERED	TOPIC
1	1.1	Inductive Reasoning
2	1.2	Estimation
3	1.3	Problem Solving
4		Catch-up & Review
5		TEST # 1 (Chapter 1)
6	2.1	Set Concepts
7	2.2	Subsets
8	2.3	Venn Diagrams and Set Operations
9	2.4	Venn Diagrams with Three Sets and Verification of Equality of Sets
10	2.5	Applications of Sets
11	2.6	Infinite Sets
12		Catch-up & Review
13		TEST # 2 (Chapter 2)
14	11.1	Percent
15	11.2	Personal Loans and Simple Interest
16	11.3	Compound Interest
17	11.4	Installment Buying
18	11.5	Buying a House with a Mortgage
19		Catch-up & Review
20		TEST # 3 (Chapter 11)
21	9.1	Points, Lines, Planes, and Angles
22	9.2	Polygons
23	9.3	Perimeter and Area
24	8.1*	Conversions within the Metric System
25	8.2*	Length, Area and Volume
26		Catch-up & Review
27		TEST # 4 (Chapter 9)
28		Review for Final
29		FINAL EXAM

* If time allows do 8.1 and 8.2.