

MIDDLESEX COUNTY COLLEGE
EDISON, NEW JERSEY

MATHEMATICS DEPARTMENT

Date: July 30, 2009

Course Title: Mathematics I

Course No. MAT 107

Class Hours: 3

Laboratory Hours: 0

Credit Hours: 3

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

Dean Approval: _____
Reginald Luke, Ph.D.

Prerequisite:

Passing score on placement test, MAT 013 (Algebra I), MAT 013A & MAT 013B, or departmental approval.

Textbook of Course:

Author: Allyn J. Washington
Title: Basic Technical Mathematics
Publisher: Addison-Wesley, 9th Edition

Catalog Course Description:

Basic Mathematics with an emphasis on the technical, manipulative skills that are required in a technological society. Emphasis is on understanding concepts in each of the many application-oriented problems. Stresses the importance of precision, accuracy, and the clear presentation of results. Topics include arithmetic operations, measurement, rounding, conversions, fractions, decimals, percents, ratio, proportion, scientific notation, use of calculators, metric system, solving linear equations, and systems of equations, and graphing linear equations.

Goals:

To equip the technical students with the skills necessary in their chosen technology. To promote the understanding, as well as competent usage of the mathematical tools required in technical vocations.

Objectives of the Course:

Students should be able to:

1. understand the universality of the mathematical language in a technological society.
2. understand the changing aspects of our technological society and its importance in our daily lives.
3. be able to apply mathematical concepts to a broad range of practical and real problems.
4. become informed citizens who can and will be able to analyze data intelligently.
5. gather information using tables and recommended handouts to assist in problem solving.
6. use scientific calculator, computer software, and other resources as problem-solving tools.

Course Outline

Chapter	<u>Topics</u>	<u># of Classes</u>
1	Basic Algebraic Operations Sections 1-12	9
2	Geometry Sections 1-4, 6	4
6	Factoring and Algebraic Fractions Sections 1-8	5
18.1	Ratios and Proportion	1
5.1 - 5.4	Linear Equations and System of Linear Equations	2
	Supplement - Entering Data and Scatter Plots	1
	Conversion in metric system	1

Day-by-Day Outline

<u>Day #</u>	<u>Section</u>
1	1.1 - 1.2
2	1.3 - 1.4
3	1.5 - 1.6
4	1.7 - 1.8
5	1.8
6	1.9
7	1.10
8	1.11
9	1.12 and Review

10	TEST - Chapter 1
11	2.1 - 2.2
12	2.2 - 2.3
13	2.4
14	2.6 and Review
15	TEST - Chapter 2
16	6.1- 6.2
17	6.3
18	6.4 - 6.5
19	6.6 - 6.7
20	6.8 and Review
21	TEST - Chapter 6
22	18.1
23	5.1 - 5.2
24	5.3 - 5.4
25	Supplement on entering data & scatter plots
26	Conversion in the metric system
27	Review for Final
28	Final Exam