

SURVEY OF MATHEMATICS – ONLINE
MA 100-90 CURRICULUM - BRIEF
7/02/01 – 9/12/01

Course Description

This is an introductory course for humanities and education majors. Topics are selected to acquaint the student with the field of mathematics. This course is a terminal course and does not prepare the student for MA102, 103, 110, 210. 3 Credit Hours.

Objectives

To acquaint the student with a wide variety of topics in mathematics with emphasis on mathematical reasoning and to encourage a logical approach to problem solving.

Textbook

Smith, Karl J., THE NATURE OF MATHEMATICS 8th edition, 1998. Brooks/Cole Publishing Co., ISBN 0-534-34988-9

Topics to Cover

Unit I. The Nature of Logical Thinking and Problem Solving.

Chapter 1. Problem Solving 1.1 – 1.3 (Optional 1.4)

Chapter 2. Logic 2.1 to 2.4 (Optional 2.5)

Unit II. The Nature of Calculation, Numbers and Geometry.

Chapter 3. Brief introduction to different numeration systems (3.3) and how the Binary system is used in computers (3.5). Section 3.4 is assigned as self-reading.

Chapter 4. Numbers - Prime Numbers (4.2)

Chapter 5. Algebra, formulas in spreadsheets (5.3)

Chapter 7. Geometry – Pythagorean Theorem (7.4, see 4.5) Golden Ratio (7.5)

Unit III. Financial Management, Probability and Statistics.

Chapter 6. Interest, Installment Purchases, Apr vs Simple Interest. (6.1-6.2)

Chapter 9. Probability. (9.1-9.5)

Chapter 10. Statistics 10.1-10.2 (Optional 10.3)

Term Project

A term project is required for this course. This will be a topic chosen by the student or assigned by the instructor related to a topic being covered in this course. It will be shared with other members of the class.

Grading

Class Participation	10%
Midterm	15%
Term Paper	10%
Final Exam	65%