FD '00

Chaminade University of Honolulu
Fall 2000 Term

Course:	MA100 02 Survey of Mathematics
Time:	MWF 1:00 - 1:55
Instructor:	Dr. Roger Taylor **Office Hours:** MWF 11:00 - 1:00 by Appointment
Communications:	PO Box 1542 Aiea Hi 96701 Messages 736-4739 Roger-Taylor@hawaii.rr.com
Textbook:	Smith, Karl J., **THE NATURE OF MATHEMATICS**(8th Edition), 1998, Brooks/Cole Publisher.

Course Description

Introductory course for humanities and education majors. Selected topics to acquaint the student with the field of mathematics. Fulfill Track A general education requirement in mathematics. This is a terminal course and does not prepare the student for MA102, 103, 110, 210. 3 credit hours.

Objectives

To introduce the student to a wide variety of topics in mathematics with emphasis on mathematical reasoning; to encourage a logical approach to the solution of problems; to create a positive attitude toward mathematics; and to foster an appreciation of the beauty and power of mathematics.

Teaching Philosophy:

Responsibility for **your** learning rests solely on **you** the student. **You** have to do the classwork, **you** have to ask the questions, **you** have to do the homework, and you have to perform on quizzes and tests. I am only a guide and record keeper. **You** are also responsible for knowing or **updating yourself** on all prerequisite information.

Topics to Cover

Chapter 1 Problem solving. 1.1 to 1.4
Chapter 2 Logic 2.1 - 2.5
Chapter 3 Calculation 3.3 - 3.5
Chapter 4 Numbers 4.2, 4.5
Chapter 5 Algebra 5.3
Chapter 6 Interest, installation buying 6.1-6.2
Chapter 7 Geometry 7.4 - 7.6
Chapter 9 Probability 9.1 - 9.5
Chapter 10 Statistics 10.1 - 10.2

Format:

Each class will usually start with my answering questions about the homework. Then, I will lecture, demonstrate problems and good technique for writing solutions, assign problems to be worked at your seat/chalkboard and circulate to get feedback and help you on your seatwork. Students may be asked to present solutions on the chalkboard. We will have daily quizzes and monthly tests, as well as a comprehensive final exam in the last week.

Homework and Projects:

Students learn mathematics by doing mathematics. It isn't usually enough to just listen to my lectures. Homework (to be done on 8.5" x 11" paper) will be assigned frequently. You must show your work for full credit. Your name, date, page numbers and problem numbers should appear at the top of each homework and each assignment should start on a new paper. Most quizzes will be taken directly from the type of problems from present and past homework.

Notebook: Each student will keep a loose-leaf notebook (8.5" x 11") composed of 4 sections: 1) Class notes and class work, 2) Completed homework, 3) Tests and quizzes, and 4) Projects. Projects can take many forms including: Classroom presentation of a section of the book, Classroom presentation of the mathematics used in your major, Research paper on topics relating to math history, successful life strategies with some tie in to mathematics, math and technology, successful teaching strategies, or anything you are interested in (with prior approval by me.)

Evaluation:

Your grade will be based on the following:

90-100 % A	All tests 30 - 40%	For a student who has excellent
80 - 89 % B	4 Projects 20 - 40 %	attendance and demonstrates
70 - 79 % C	Quizzes 10 %	growth in mathematical skills and
60 - 69 % D	Final exam 20-25%	abilities, I will choose be best
0 - 59.5 % F	Homework 0-10%	percent for your course grade!
	Notebook 0-5%	

Learning Outcome Assessment:

*Knowledge of the subject matter from the textbook, media articles, class lectures, discussion.
*Ability to present a short discussion on a mathematical topic.
*Ability to apply mathematical ideas to current issues in society.
*Clarity and logical presentation.

Bio

Roger Taylor graduated from Florida State University in 1973 with a PhD in Theoretical Mathematics. He came to Hawaii in 1981. Cronologically/Simultaneously, he has taught at Community Colleges(5), On the Military Bases on Oahu(5), On US Naval Vessels deployed in the Pacific Ocean, Indian Ocean, and Arabian Gulf(3), Local High Schools(10), and now at Hawaii Pacific and Chaminade Universities. His interests include Dahn-Hak, Swimming, Community Production at Olelo, Alternative Medicine, Mathematics of Financial Markets, Lanai Gardening, Massage Therapy, and Writing Mathematics.