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### Chaminade University of Honolulu Pearl Harbor Fall Term 2000

Course: MA102. Beginning Algebra <u>Time:</u> MW 1645-1850

**Instructor:** Dr. Roger Taylor **Communications:** PO Box 1542 Aiea Hi 96701

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Textbook: Beginning Algebra (5<sup>th</sup>) Edition, by R. David Gustafson

& Peter D. Frisk, 1999. Brooks/Cole Publishing Co., Pacific Grove, CA

#### **Course Description**

Algebra knowledge and skills for college studies: Sets and real number system, exponents and polynomials, rational and radical expressions, equations and inequalities with applications, including equations containing rational and radical expressions, systems of equations, beginning analytic geometry and functions, exponential and logarithmic functions

### **Objectives**

- 1. To give the student a firm foundation in the fundamentals of Algebra.
- 2. To prepare the student for entry into MA103 and/or MA110 Precalculus.
- 3. Emphases are: Skills in manipulating algebraic expressions (polynomials, rational expressions, radical expressions), in solving equations and inequalities, basic concepts of functions, including exponential and logarithmic functions, mathematical modeling, and generalized tools

# **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** Chapters 1 - 9 minus a few select sections.

## 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:**

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 daily. 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.

<u>Notebook</u>: 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 Extra work. The extra work consisting of problems you solve that haven't been assigned, can be worth up to a 5% bonus on your final grade(10-50 problems per week.) You should also include examples from Chapter Summaries and Chapter Tests even if I don't assign them as your quiz and test questions will be similar to these. Check your answers as you go along. I will check this notebook periodically. Grade will be based on the following:

#### **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	Project 5 - 10 % attendance and demonstrates
70 - 79 % C	Quizzes 20 - 35 % 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:**

- \*Comprehension of the Understood 1, the Properties of 1, and the Properties of 0
- \*Parenthesis techniques
- \*Ability to present a short discussion on a mathematical topic.
- \*Ability to translate Mathematical Short Hand
- \*Clarity and logical presentation.
- \*Mathematical Modeling

### <u>Bio</u>

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