SD·02

Chaminade University of Honolulu
2002 Spring Term
January 14-May 10, 2002

Course: Math 103-3 College Algebra
Location: N227
Time: 9:30-10:50 TR
Instructor: Dr. James W. Miller
Communications: Office: 735-4811
Home: (808)521-1634
55 South Kukui Street #1908
Honolulu, HI 96813
email: jmiller@chaminade.edu
email: JWMILLER27@aol.com

Office Hours: 10:30-12:00 MWF
Additional times by appointment

I. Textbooks (Req): Gustafson, R. David and Frisk, Peter D.
Algebra for College Students, Sixth Edition
Pacific Grove, CA: Brooks/Cole Publishing Co., 2002

II. Textbooks (Rec): TBD

III. Other Requirements: Notebook. Scientific Calculator recommended.

IV. 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 or radical expressions and systems of equations; beginning analytical geometry and functions; exponential and logarithmic functions; and other selected topics including Sigma notation, the binomial theorem, limits, matrices and probability. Fulfills Track B general Education requirement in mathematics

V. Course Intent: The intent of the course is to provide for students the opportunities to build foundations of the principles of algebra, which may assist them in growing their academic backgrounds and building their areas of specializations.

VI. Course Objectives:

A. For each of the topics in the required textbook, gain a working understanding appropriate to an academic background and to fields of specialization.

1. Basic concepts and properties of the Real Number System.
2. Linear and quadratic equations/inequalities.
3. The rectangular coordinate system/lines in the xy-plane.
4. Systems of linear equations/solution sets.
5. Polynomials--factoring, functions and processes.
6. Rational expressions--processes and equations.
7. Radicals and rational exponents.
8. Quadratic Functions and Inequalities.
9. Functions and operations.
10. Exponential and logarithmic functions.
11. Solving polynomial equations.
12. Conic sections.
13. Selected topics

B. In addition, a course objective is to provide for each student the repertoire of algebraic skills sufficient to score well above the mean in such tests as the MCAT.

C. In addition, a course object is to provide for each student a command over the concepts of algebra and the algebraic skills suitable for further study in more advanced topics in mathematics.

D. In addition, a course objective is to provide each student with an awareness of the implications of the principles of mathematics to comprehend issues that occupy the national and international scientific stage.

VII. Course Format: Each class session will contain three parts:
Current assigned topic,
Clarifications of previous topics, and
Problem solving strategies.

The fundamental components of each the first eight chapters are typically covered in classes like Math 102. However, the more demanding treatments that can determine success in more advanced classes are reserved for this class. Students should study accordingly.

The pace of the course and the intensity of some topics will test us all. Students are expected to develop and exercise their own skills of problem solving in all class activities. The guidance a teacher can provide makes the most sense if students attend classes. The growth that each student can experience depends upon his or her own exertions. Hopefully, we will find a proper balance during our time together. JWM

VIII. Requisite:

IX. Prerequisite: Passing of Math 102, demonstrated skills through placement tests, or consent of the instructor.

X. Course Requirements:

Attendance
Participation
Homework
Quizzes
Problem Sets
Two one-hour exams
Final Exam (Monday, May 6, 2002, 8:00 - 10:00 am)

XI. Grading System:

Attendance/ Participation/ Homework:	10%
Chapter Quizzes Problem Sets	30%
First Hour Exam	15%
Second Hour Exam	15%

Final Exam	30%
Total for Final Grade	100%

Grading Scale:

A	90-100 %	Outstanding scholarship and excellent intellectual initiative with the coursework..
B	80-89%	Superior quality done in a consistent intellectual manner with the coursework
C	70-79%	Satisfactory grade showing competent understanding of the course work.
D	60-69%	Lowest passing grade but not sufficient to fulfill prerequisite work.
F	59% and lower	Unsatisfactory understanding of the coursework.; no credit given.
I		Grade is not automatic. Grade deferred because student did not complete work because of circumstances beyond his control. Student must enter into a contract with the instructor to complete work time certain.

XII. Timetable/Assignments/Schedule (Attached).

Chaminade University of Honolulu
Spring 2002
Math 103-3

	Date	Topic	Ch			Sec	
1	T 01/15	1. Basic concepts	1	1	80	1, 2, 3	
2	Th 01/17	Real Number System	1			4, 5	
3	T 01/22		1			6, 7	
4	Th 01/24	2. Linear and quadratic	2	65	145	1, 2, 3	
5	T 01/29	eqns/inequalities	2			4, 5	
6	Th 01/31	3. The rectangular	3	55	200	1, 2, 5	
7	T 02/05	coordinate system	3			3, 4	
8	Th 02/07	4. Systems of linear	4	53	253	1, 2	
9	T 02/12	eqns/solution sets.	4			3, 4	
10	Th 02/14	5. Polynomials--	5	70	323	1, 2, 3	
		factoring, funct, proc					
	FIRST HOUR EXAM (CH 1-4)						
11	T 02/19		5			4, 5, 6	
12	Th 02/21		5			7, 8	
13	T 02/26	6. Rational expressions--.	6	75	398	1, 2, 3	
14	Th 02/28	proc and equations	6			4, 5	
15	T 03/05		6			6, 7	
16	Th 03/07	7. Radicals and .	7	60	458	1, 2, 3	
17	T 03/12	rational exponents	7			4, 5, 6	
18	Th 03/14	8. Quadratic Functions	8	54	512	1, 2, 3	
19	T 03/19	and Inequalities	8			4, 5	
	SECOND HOUR EXAM (Ch 5-8(						
20	Th 03/21	9. Functions and	9	59	571	1, 2, 3	
	Spring Break						
21	T 04/02	operations.	9			4, 5, 6	
22	Th 04/04	10. Exponential and	10	62	633	1, 2, 3	
23	T 04/09	logarithmic functions.	10			4, 5, 6	
24	Th 04/11	11. Solving poly eqns.	11	35	668	1, 3, 4	
25	T 04/16	12. Conic sections.	12	53	721	1, 2, 3	
26	Th 04/18		12			4, 5	
27	T 04/23	13. Selected topics	13	67	788	2, 3, 4	
28	Th 04/25		13			6, 7	
29	T 04/30					Review	
30	Th 05/02					Review	
	FINAL EXAM (Monday, May 6, 2002, 8:00 - 10:00 am)						