SS '02

Chaminade University of Honolulu
2002 Summer Evening Term
July 6-September 7, 2002

Course: **Math 100-T Survey of Mathematics**
Location: Tripler Education Center (Building102, Room 103)
Time: Saturday, 8:00 a.m. to 12:10 p.m.
Instructor: Dr. James W. Miller
Communications: Office: 735-4811
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55 South Kukui Street #1908
Honolulu, HI 96813
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Email: JWMILLER27@aol.com

Office Hours: By appointment

I. Textbooks (Req): Smith, Karl J.
The Nature of Mathematics, Eighth Edition
Pacific Grove (CA): Brooks/Cole Publishing Co., 1998.

II. Textbooks (Rec): TBD

III. Other Requirements: Notebook. Scientific Calculator is recommended.

IV. Course Description: Introductory course for humanities and education majors. Selected topics to acquaint the student with the field of mathematics. Fulfills Track A general education requirement in mathematics. The course is a terminal course and does not prepare the student for MA 102, 103, 110, or 210. 3 credit hours:

V. Course Intent: The intent of the course is to provide for students the opportunity to establish understandings of principles and applications of mathematics, which may serve as perspectives for their academic backgrounds and their areas of specializations.

VI. Course Objectives:

A. For each of the assigned topics in the required textbook, gain a working understanding of the major mathematical issues and their importance in mathematics.

B. In addition, a course objective is to provide for each student the repertoire of basic mathematical skills.

C. In addition, a course objective is to provide for each student basic problem solving skills.

D. In addition, a course objective is to provide for each student an historical perspective of mathematical thought.

E. In addition, a course objective is to provide for each student an awareness of the principles of mathematics necessary to comprehend issues that occupy the national and international stage.

VII. Course Format: Each class session will contain four major strands:
1 hour each of segments of three chapters. (See explanation below.)
1 hour of problem solving/discussions/project development

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Each hour segment will contain:
Clarification of the assigned Chapter segments.
Clarification of previously assigned Chapter segments.
Problem solving strategies/learning strategies.

The fundamental components of each of the twelve chapters are typically covered in several different courses in mathematics. However, this is an introductory class and, as such, has no prerequisite level of prior studies or understandings. Your presence in this class attests to your desire to gain understandings sufficient to support your chosen area of specialization. My presence in this class attests to my desire to help you attain your desired understandings.

The pace of the course and the "strangeness" of some topics will test us all, you to confront the "strangeness," me to help you unravel that "strangeness." You are expected to develop perspectives and exercise your skills of problem solving in all class activities. The help that any teacher can provide makes the most sense if students attend classes. Hopefully, we will find proper balances during our time together. JWM

VIII. Requisite:

IX. Prerequisite:

X. Course Requirements:

Attendance
Participation
Quizzes (Weekly)
Term project (Required. Due Date: August 31, 2002)
Two one-hour exams (To be scheduled)
Final Exam (Saturday, September 7, 2002, 8:00 a.m.-10 a.m.)

XI. Grading System:

Attendance	5%
Participation	5%
Homework	10%**
Term Project	15%
Chapter Quizzes	15%
First Hour Exam	15%
Second Hour Exam	15%
Final Exam	30%
Total for Final Grade	110%**

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. Student did not complete work because of circumstances beyond his control. Student must enter into a contract with the instructor to complete work within time certain.

Notes: * Make-up date for class missed on July 6, 2002 TBD

** Homework is not required. However, each home assignment turned in on the due date is counted as extra credit.

XII. Timetable/Assignments/Schedule

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Math 100-3 Tripler
Survey of Mathematics
July 11 - September 12*, 2002

Day	C/S	Topic	Assgn	C/S	Topic	Assgn	C/S	Topic	Assgn
7/11	1.1	**PS**		**6.1**	**Interest**		3.1	Early sys	
	1.2	**Sets**		**6.2**	**Installment**		3.2	Hindu/Arabic	
							3.3	**Diff Sys**	
							3.4	*Calc Devices*	
							3.5	*Computers*	
7/18	1.3	**I/D Reason**		*6.3*	*Sequences*		7.1	Geometry	
	1.4	*Sci Not/Est*		*6.4*	*Series*		7.2	Polygon/angle	
	2.1	**Deductive**					7.3	Triangles	
7/25	**2.2**	**Truth Tables**		*6.5*	*Annuities*		**7.4**	**Sim Triangles**	
	2.3	**Operator/Law**		*6.6*	*Amortiz*		**7.5**	**Golden Triangles**	
	2.4	**Proof**							
8/1	*2.5*	*PS w/Logic*		6.7	Fin power		**7.6**	**Konigsberg**	
	4.1	Nat Numb		8.1	Prec/Acc/Est		7.7	Topology/Fractals	
	4.2	**Prime**		8.2	Area		7.8	Proj NonEuc Geo	
8/8	4.3	Integers		8.3	Volume/Capacity		12.1	Sys of Equations	
	4.4	Rational		*8.4*	*Misc*		12.2	PS with Sys of Eqns	
	4.5	Irrational							
	4.6	Real							

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Day	C/S	Topic	Assgn	C/S	Topic	Assgn	C/S	Topic	Assgn
8/15	4.7	Finite Alg		11.1	Graphing lines		12.3	Matrix Solution	
	4.8	*Cryptography*		11.2	Graphing half planes		12.4	Inverse Matrix	
	5.1	Polynomial		11.3	Graphing Curves				
8/22	5.2	Factoring		11.4	Functions		12.5	Sys of Inequalities	
	5.3	**Eval/App/SS**		11.5	Calculus		12.6	Linear Programming	
				11.6	Limits				
8/29	5.4	Equations		**9.1**	**Intro to Prob**		**10.1**	**Freq Dist/Graph**	
	5.5	Inequalities		**9.2**	**Math Expect**		**10.2**	**Descrip Stats**	
	5.6	Alg in PS		**9.3**	**Prob Models**		*10*	*Normal Curve*	
9/5	5.7	Ratio/Prop		**9.4**	**Counting Formulas**		10.4	Correl/Regression	
	5.8	Modeling		**9.5**	**Calc Prob**		10.5	Sampling	
	5.9	*Basic*		*9.6*	*Rubic Cube*				
9/12		**Final Exam Return**			**Project Completions**				