Chaminade University

MATHEM~~~~~~~~~~~~~~Y OF MATHEMATICS   SPRING SEMESTER, 1999

INSTRUCTOR: Mr. S. POWELL   **Office H-19(math lab),   Kalia 218(KCC)**
Phone: 734-9175   Home: 732-4207
Office Hours: MWF 9 - 10 AM (Kalia 218)
12 - 1 PM (H-19)
Email: dpowell@hpu.edu   (I check daily)

TUES. - THURS.   7:50 - 10:00 PM

TEXTBOOK: Smith, Karl J. THE NATURE OF MATHEMATICS, 8th Edition, 1998,
Broods/Cole Publishing Co., Pacific Grove, Calif., 93950. ISBN 0-534-34988-9.
www.thomson.com, www.brookscole.com.

OBJECTIVES: To acquaint the student with a wide variety of topics in mathematics with
emphasis on mathematical reasoning: to encourage a logical approach to the solution
of problems in mathematics: to create a positive attitude towards mathematics
and to foster an appreciation of the beauty and power of mathematics. It is not
a review of elementary and high school mathematics.

EVALUATION: Final grades for the course will be based on:

a) Class Participation	5%
b) Attendance	5%
c) Homework and Quizzes	20%
d) Project	20%
e) Midterm exam	20%
f) Final Comprehensive Exam	30%

ATTENDANCE: Because of the shortness of the session, attendance is very important.
You not only miss out on 2 hours worth of work but it also hurts your participation
grade. Note that class participation and attendance comprise 10% of your grade. If
you miss a test it should only be for a health emergency and should be accompanied
by a doctors note. You must contact the instructor immediately to make
arrangements for a makeup.

HOMEWORK: All assigned homework MUST be submitted on its "due date". Collected
homework will be corrected as soon as possible. After an opportunity to ask
questions, students will be called on to present their homework solutions at the next
class meeting.

Students are to keep a notebook for the semester which is to include homework and
a log of your work, thoughts, formulas and insights. This notebook may be part of
your homework grade. You may also be given a writing assignment or log to give
for the next class.

The required project will involve independent research and a class presentation. Each student hereby acknowledges an understanding of the University regulations regarding plagiarism and academic dishonesty as stated in the College Catalog.

COURSE OUTLINE: A wide variety of topics will be introduced to meet the objectives of the course. The textbook will serve as the starting point to explore these topics, and homework will be assigned from it. Each student should have a scientific calculator, a straightedge, graph paper and various other materials as required during the semester. Access to a computer is helpful but not required.

- Topics include: (Chapters 1,2,9,10,parts of 3,4,6 and 7)

- The Nature of Problem Solving

- How to use a calculator

- Inductive and deductive reasoning, mathematical patterns, sets, logic, Venn diagrams.

- Pascal Triangle and its applications

- Computers and the Binary Numeration System

- Natural and Prime numbers

- Probability, counting formulas, expectations

- Frequency Distributions, Descriptive Statistics, the normal curve and correlation and regression.

- Sampling.

- Geometry, Polygons and Angles, rt. angles, Golden ratio

- Interest rates