CHAMINADE UNIVERSITY - MA100 SYLLABUS – SCHOFIELD BARRACKS

Instructor: Dr. Trevorrow

Class Dates: 01/10/2010 - 03/18/2010

Class Times: Tuesday 5:30 – 9:40 pm: Schofield Education Center (above the library)

Additional Help: You may meet with the instructor before class usually 3-5pm or attend one of the optional Saturday afternoon sessions near Pearl Harbor, by arrangement.

Email: torrance.trevorrow@adjunct.chaminade.edu (during semester) or arithmetic.math@gmail.com (before/after semester)

Text Book: The Nature of Mathematics, Eleventh Edition by Karl Smith. Brooks/Cole Publishing Company, ISBN 0-495-01272-6. If ordered online make sure to pay for priority shipping. The first chapter (only) is available online (free) as a Pdf. A student solutions manual may also be helpful ISBN 049510809X.You may also prefer to purchase individual chapters or rent the text (check sources)

Course Description: (from the catalog) 3 Credits. Mathematical thought is studied through interactions between the foundations of knowledge and the study of the nature of both algebra and geometry. Issues of mathematical thought are addressed through selected studies of the nature of sets, logic, numbers and operations, algebra, geometry, measurement, financial management, probability, statistics, graphs and functions and mathematical systems. This course fulfills the Track A general education requirement in mathematics. The course is intended as a terminal course and is not a prerequisite for any other course in mathematics.

Prerequisites: The student should already be competent with basic arithmetic, fractions, percents, and very elementary algebra.

Course Goals: To increase the student's mathematical knowledge and abilities. Mathematical style and perspectives are developed and analyzed from the text, problem solving, examples, presentations and critiques. A variety of mathematical topics are chosen to expose the student to different types of mathematical thinking and approaches to numerical problem solving.

Course Objectives: At the completion of this course the student should be familiar and demonstrate competency with the following topics and concepts (subject to change).

- Problem Solving, mathematical style and modeling
- Inductive and Deductive Reasoning, Scientific Method
- Scientific and Exponential notation, Order of operations, Calculator types, applications
- Sets, Venn / Euler diagrams, concepts and uses in problem solving
- Set Operations, rules, applications, a way to solve some types of problems
- Finance and Interest, types of loans, inflation, compound interest, money vs currency
- Installment loans, add on interest, credit card interest, Apr.
- Frequency distribution, graphs, types, advantages, disadvantages, interpretations, design
- Descriptive Statistics, Central tendency - measures, Dispersion - types, applications, Grading theory
- Probability Calculations and terminology, applications of tree diagrams, exposure
- Expected Value, extended warranties, games, contests, insurance

Primary Chapters: 1, 2,11,13,14

Methodology: Most of your learning will come from class participation, activities, meticulous study of the text, and completing the assigned work. Multiple quizzes, discussions, and presentations will be used to reinforce learning. A group project may be required.

Success: All courses require a high degree of personal responsibility and time management skills. Grades tend to be proportional to the personal effort that is taken for the learning process. Universities often recommend 2-3 hours of study time for each hour of class time. A three credit course would require about 12 hours per week for study, research, reading, and assignments.

Grading: The contributions of various components of the course are indicated as percentages. Changes may be made to the course and grading at the instructor's discretion. Quizzes 40%, Final Exam 40%, Homework 20%, Presentation(s) +10%. You must obtain at least 60% on the final itself to pass the course.

- A 90% + Outstanding Scholarship and excellent initiative with course
- B 80% + Superior Quality done in a consistent intellectual manner
- C 70% + Satisfactory showing competent understanding of course
- D 60% + Lowest passing grade, inadequate for prerequisites
- F <60% Unsatisfactory understanding and class work*

Late Work: Not accepted or graded. Any collected work is due at the start of class. You have a full week to meet requirements, schedule accordingly.

Homework: The student should do all representative questions and ask for help as necessary. Homework will be evaluated for completeness, neatness, organization and accuracy.

Attendance: (from the university catalog) Active and early participation is vital to your success. Waiting until the last minute to complete the required work and then having difficulties is not excused. Each student is accountable for all the information presented and to submit work by the due dates. Guidelines from the undergraduate catalog indicate that if you miss more than a week of classes you are subject to a grade reduction; missing two weeks of classes will result in notification to the Associate Provost and Records office, and possible withdrawal or failure for the course. Should an illness or personal reasons necessitate continued absence the student should officially withdraw.

Academic Integrity: All material submitted in fulfillment of course requirements must be done by the registered student. Cut and paste research, copying, substitute work, sharing quizzes or exams will result in a grade of zero and possible failure for the course.

ADA Accommodations: Students with special needs who meet the criteria for the Americans with Disabilities Act (ADA) provisions must provide written documentation of the need for accommodation from the CUH Counseling Center (Dr. June Yashuara; phone (808) **735-4845** by the end of week two of the class in order for the instructor to plan accordingly. Failure to do so will prevent the instructor from making the necessary accommodations.

Cell Phones etc: To avoid disruption to others no technology including cell phone and laptops are permitted for use in the classroom at any time. If you need to make a call please make it outside the classroom during breaks.

Supplies: Text Book, Notebook, Calculator with exponential functions (two line display recommended). Other items may be required.

Resources: The text and class materials are the primary resources for the course. Often re-reading the

same section of the text (slowly) will help more than searching for other material. The Internet, library and bookstores can also be useful.

Requirements: You are required to immediately seek clarification on any material that you do not understand. All presentations should show complete working, clear explanations and identification of the material being presented. You are responsible for learning how to use your calculator.

You are expected to maintain standards of academic performance and courtesy and to comply with all CUH policies. Any requests from the instructor require a prompt response. Should it be necessary to withdraw from the course please let me know.

Per the base commanders request no food or drink is to be brought into the classroom excluding bottled water.

Finals: Specific information will be provided towards the end of the semester. Usually the final is written, closed book, no notes, calculator permitted, formulas may be provided. The final must be taken when scheduled, and is not a matter of personal convenience.

Notes