



MA100 SURVEY OF MATHEMATICS
Semester: Winter 2014 - Schofield Education Center
Professor: Dr. Trevorrow

Class: Thursday's (10 Weeks) 01/16/2014 to 03/20/2014. 5.30pm - 9.40pm
Text: Thinking Mathematically, 5th edition, Blitzer, Prentice Hall (various Isbn)
Office Hours: Before or After Class (optional live Saturday sessions may be offered)
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Course Description: This is a 3 credit terminal course and is not a prerequisite for any other course in mathematics. As a survey course a variety of mathematical topics are studied and may include: Problem Solving, Inductive Deductive Reasoning, Scientific Method, Numeration Systems, Number Theory, Algebraic Expressions, Graphing Equations, Percent, Finance, Measurements, Optimization, Probability Theory, and Statistics. The goal is to help the student understand and apply mathematical nomenclature, format, and a variety of mathematical skills and techniques to solve diverse, numerically based problems with an emphasis on using graphs to illustrate solutions.

Course Topics: Problem Solving, Numeration Systems, Number Theory, Algebraic Expressions, Graphing, Percent, Finance, Measurements, Optimization, Probability Theory, and Statistics.

Course Objectives are based on the Chapter/Section Contents from the text and evaluated based on problem solving, definitions, concepts and applications. Depth of coverage will vary according to class interests, abilities and time. In Brief:

- Comprehend different problems solving models as they apply to mathematics
- Relate the scientific method to inductive reasoning and its limitations
- Application of tables and patterns to solving complex problems
- Explore different numeration systems and quantitative symbolic history
- Appreciate numerical properties and their applications
- Uniqueness of prime numbers in solving unusual problems
- Use of algebraic symbols to solve word problems
- Nature of functions, expressions, evaluations, vertical line test
- How to read, interpret, label and create graphs based on data or simple equations
- Apply concepts of percent, simple and compound interest to consumer applications
- Properly define commonly used nomenclature for financial formulae, ordinary vs. exact interest
- Tax system; credits vs. deduction, graduated vs. flat, calculations
- Understand the origins, development and problems with our "money" system
- Be able to convert various measurement units, understand their advantages, disadvantages
- Dimensional Analysis, Optimize shape, Unit vs. Measurement,
- Make predictions based on theoretical or empirical probability and apply to dice, cards, events
- Form basic statistical calculations, numerical and graphical interpretation
- Understand some requirements for valid survey, Sample Size, Randomness,
- Create different graph types, determine which might be most appropriate for given data`
- Know how graphs may be structured to modify perceptions and affect conclusions

Required Materials: Three ring Binder and note paper, Text, Multi Line Calculator, Graph Paper, Ruler, other materials as discussed.

Attendance: Each week is the equivalent of 4 regular day classes. Missing class, arriving late or leaving early can significantly affect your learning and grade. All students will be required to sign an educational agreement and weekly attendance log.

Deficiency Report: May be issued for students who are officially registered but not attending class, not doing satisfactory work, or violating class standards.

Quizzes: Normally there will be a quiz at the end of each class. This may or may not be collected as part of your classwork.

Submitted Work: Classwork, Quizzes, Projects will be periodically collected. Use normal size paper, no paper tears, write neatly, with the question(s) or assignment properly identified. Box or highlight final numerical answer. Minimal Working, Poor Structure = zero. For all collected work, write your last name, first name at the top right hand side, with the date underneath. No text or calculator sharing for graded work. Late work or not following standards, regardless of reason, gets zero points.

Late Work: Any work due the following week is to be submitted before class starts. If late, it is not accepted and the grade is zero.

Grading: (from the university catalog) Letter grades are given in all courses except those taken on a credit/no credit basis. Grades are calculated from the student's daily work, class participation, quizzes, tests, term papers, reports, and the final examination. They are interpreted as follows:

A Outstanding scholarship and an unusual degree of intellectual initiative. **B** Superior work done in a consistent and intellectual manner. **C** Average grade indicating a competent grasp of subject matter. **D** Inferior work of the lowest passing grade. **F** Failed to grasp the minimum subject matter; no credit given.

Midterm	500 pts
Final Exam	500 pts
Submitted Work	200 pts
Attendance	(-) 5pts per partial hour late or missed

Notebook: Taking clear well organized notes can aid greatly in your learning and study and provide additional information not covered by your textbook. A three ring binder and loose leaf paper is required.

Final Exam: 2 hrs, comprehensive, end of Week 10. You must take the final when scheduled. A grade of 50% or better on the final is required to pass the course.

Course Schedule: In general we will cover 2 - 4 text sections per week. Each section may require 1 - 3 hrs for reading and study and additional time for completing the HW. A detailed weekly schedule will be provided (subject to change).

Academic Integrity: All material submitted in fulfillment of course requirements must be done by the registered student. Copying, having someone else do your work or sharing exam information, constitutes plagiarism and may result in failure for the course.

Technology: As much as practicable students are encouraged not to rely on calculators, however they may be helpful in evaluating large exponents, exploring number theory and for checking your work. You are expected to obtain calculator mastery for the functions and operations used in class. Computers, Tablets, cell phones etc. are prohibited in the class room.

Violations of any type may result in grade reduction.

Deportment: A disruptive behavior or actions that interfere with the learning of other students may result in a grade reduction and or being asked to leave.

Food and Drink: Please follow the base commander's directions in this regard.

ADA Accommodations: Students with special needs that meet the requirements of the Americans with Disabilities Act (ADA) should inform the Chaminade Counseling Center by the end of Week 2 for a determination of possible accommodations. Contact: Dr. Yashuara, **808 - 735 - 4845**

Assistance: Help is available before or after class, by email and live sessions may be offered near Pearl Harbor by arrangement. Tutoring may also be available via Student Services at the main campus.