

CHAMINADE UNIVERSITY: MA 110 NATURE OF MATHEMATICS

Instructor: Dr. Trevorrow

Class Times: M,W,F 1-1.50PM

Office Hours: By appointment usually before class. In addition some Saturday sessions are offered, usually near Pearl Harbor (open to all).

Email: torrance.trevorrow@adjunct.chaminade.edu. ALL my students are required to send a single email through the CUH email server with their MA110 in the subject line.

Text Book: Precalculus – Mathematics for Calculus. Fifth Edition by Stewart, Redlin and Watson. Thompson & Brooks/Cole Publishing Company, ISBN 978-0-495-39276-7. The student solutions manual (if available) is also helpful. ISBN 0-534-49290-8

Course Description: (from the catalog) Foundation for further study in mathematics. Primarily the preparatory course for MA 210. Topics include polynomials in general, functions and inverse functions, functions and graphs, exponential and logarithmic functions, trigonometric functions and their inverses, the binomial theorem, mathematical induction, all complex numbers. Not open to students with credit in MA 210 or higher courses. Offered every semester. Prerequisites: MA 103 or placement.

Course Goals: This course will place an emphasis on increasing the student's mathematical skills and knowledge as a foundation for understanding calculus and to appreciate mathematics as a tool for modeling the real world.

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

Fundamentals of Algebra (review)

Modeling with Equations

Functions and Inverse Functions

Polynomials and Rational Functions

Exponential and Logarithmic Functions

Trigonometric Functions with Real Numbers

Trigonometric Functions of Angles

Sequences and Series

Limits, Basic Differentiation and Integration (time permitting)

Methodology: Most of your learning will come from class participation and activities, meticulous study of the text, and completing the assigned work. Multiple quizzes, discussions, and articles will be used to reinforce learning. An emphasis will be placed on end of section Discovery questions, and end of chapter Focus problems.

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 and seeking immediate clarification for enigmatic areas. 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.

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Grading: The contributions of various components of the course are indicated as percentages. Quizzes 40% Final Exam 60%. An additional 10% may be added based on class contributions. The instructor reserves the right to adjust a student's grade up or down if your quizzes and final do not reflect expected achievement. Changes may be made to the course and grading at the instructor's discretion.

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	0-59%	Unsatisfactory understanding and class work

Late Work: Not accepted or graded. No exceptions (do not ask). Start early, avoid problems. By making significant class contributions or mini-presentations, you may compensate for unavoidable circumstances. If there are legitimate medical emergencies (ER), hospitalization, or military orders that do not extend beyond CUH guidelines, then an average of your in class scores will be used. Usually students are permitted to drop one quiz.

Attendance: Active and early participation is vital to your success. Each student is accountable for all the information presented in class. If you miss a class, please find a colleague for class notes *and handouts*. 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. 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, or sharing exams will result in a grade of zero and possible failure for the course.

Supplies: Text Book, 3 Ring Binder, Ruler, Graph paper, and a Graphing Calculator (discussed first day of class).

Resources: The text and class materials are the primary resources for the course. Often re-reading the same section of the text (several times) will help more than searching for other material. However, 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. You are expected to maintain standards of academic performance and courtesy and to comply with all CUH policies. No cell phones, PDA, laptop, mp3's etc, or food in class. Any disruptive behavior or violations will result in expulsion from class (subsequent occurrence possible withdrawal from course).

Finals: Specific information will be provided towards the end of the semester. Usually the final is written, closed book, no notes, calculator permitted. Formulas are normally provided.

