Grace Christian School

**Bridge to Algebra II**

**Syllabus**

**GRADE:** 11 **DATE:** August 20, 2020

**BASIC TEXT(S):** Modeling with Mathematics - A Bridge to Algebra II.

Gary Cosenza, Paul Gray, Julie Horn, Sharon Benswon, DAvid Eschberger, Roland Cheyney, Jo Ann Wheeler: W. H Freeman and Company, ©2006.

**OVERVIEW:** Algebra II Bridge reviews and expands concepts learned in Algebra I for graphing and solving linear and quadratic equations which includes the manipulation of exponents, radicals and imaginary numbers. It also introduces the concept of logarithms and the use of word problems incorporating real world problems. The TI-83 Plus graphing calculator is used somewhat throughout the later part of the year to build concepts and expand understanding of the material. The intention of this course is to provide students with an understanding of solid algebraic concepts and skills that will help them in future math courses as well as in other areas of life. In addition to regular classroom instruction, several websites are used which include: *Google Classroom, Khan Academy, Kuta Software, and The Math Page.* These websites offer extra practice and explanation of various concepts. Teaching varies between individual work, think-pair-share activities as well as practice using white boards.

**MAJOR TOPICS & SKILLS:**

FIRST QUARTER

Chapter 1. Science: Modeling with Direct and Inverse Variation

TEST

Chapter 2. Bones: Linear Functions and Predictions

TEST

SECOND QUARTER

Chapter 3. The World of Business: Systems of Equations

TEST

Chapter 4. Art: Transformations, Symmetry, and Proportions

TEST

THIRD QUARTER

Chapter 5. Motion: Quadratic Functions

TEST

Chapter 6. Growth and Decay: Exponential Functions

TEST

FOURTH QUARTER

Chapter 7. Money and You: Mathematics and Finance

TEST

Chapter 8. Cycles: Trigonometry and Sinusoidal Functions

TEST