Course Title: HIGH SCHOOL MATH B

Course No. 5202 **Grade level**: 9-12

Basic Text and Resource Options:

A. *Pre-Algebra*; AGS
B. *Algebra ½*; Saxon Publishers
C. *Saxon Math 87*, Part I; Saxon Publishers
D. *Pacemaker Pre-algebra*; Globe Fearon
E. *Algebra*, Part I; AGS Publishing
F. *Pacemaker Algebra 1*; Globe Fearon
G. *Algebra*; Prentice Hall
H. *Algebra I: Concepts and Skills*, Part I; McDougal-Littell

Supplementary Text Options:

A. *Saxon Math 54*; Saxon Publishers
B. *Saxon Math 65*; Saxon Publishers
C. *Saxon Math 76*, Part I; Saxon Publishers
D. *Mathematics Applications and Connections II; Glencoe McGraw-Hill*
E. *Mathematics: Applications and Connections* I; McDougal-Littell
F. *AGS Basic Mathematics*; AGS

Course Content: Key Content Standards and Course Objectives

Grades 8-12 standards unless noted otherwise:

1. Algebra & Functions

Graph and interpret graphs (7-1.5), graph functions (7-3.1, 3.3, 3.4), solve direct variation (7-4.2), algebraic techniques to solve word problems (15.0), add, subtract, multiply & divide monomials (10.0), Solve algebraic problems (5.0, 6.0, 7.0, 8.0, 9.0), interpret graphs (7-3.1 3.3), graph functions (7-3.1, 3.3), linear equations and inequalities (7-4.1).

2. Algebra

Graph linear equations, compute X & Y intercepts (6.0), verify point-line segments though line equations (7.0), parallel lines, perpendicular lines and their slope.

3. Geometry

Area, perimeter, volume (8.0, 9.0, 10.0) (1l.0, 12.0) (7-2.1, 2.2, 2.3), Circle/Pi (7-2.1, 21.0), 90-degree triangles (18.0,20.0)(7-3.3), Pythagorean Theorem (14.0, 15.0)(7-3.3), Congruency (4.0, 5.0), use properties to find unknown angles (13.0, 19.0, 20.0), Comparing measurement systems (7-1.1), Read scale drawings (7-1.2), measures expressed as rates or products (7-1.3), use coordinate graphs to plot simple figures (7-3.2)

4. Mathematical Reasoning

Use of charts, graphs, tables, diagrams, models to explain math reasoning, Problem solving strategies (Heuristics)(7-1.1, 1.2, 2.4), estimation (7-2.1, 2.3).

Course Description

Course Value: *One Semester

Credit Value: 1 – 5 Credits

This course is based upon the math standards included in the California High School Exit Exam, as outlined in the *Sequenced Pattern of Instruction.* Students will acquire the skills necessary to manipulate numbers, solve equations and understand the general principles at work. Students will also learn to apply the Grade 9-12 Mathematical Reasoning Standards to daily life activities. Teachers will use layered curriculum, based on the CAHSEE and student skill levels to meet individual student needs. The technique of "backwards mapping" will be incorporated to provide standards-based scaffolding for those students whose mathematics skill levels are below grade level. Thus, the textbook options range from basic mathematics to algebraic concepts.

*Open entry/open exit

Methods of Study

1. Students will complete all activities assigned.
2. Students will participate in discussion with other class members and/or teacher.

Evaluation of Performance Standards

1. Students will complete all assignments with a minimum of 70% accuracy.
2. The supervising teacher will be satisfied with the quality of the student's work.
3. The student must receive a minimum score of 70% on a teacher assigned final evaluation.