A-g Trigonometry/Pre-Calculus

Course Description:
 This is a course of study of all the mathematics necessary for success in a Calculus class, including probability, statistics, series and sequences, polynomial and rational functions, exponential and logarithmic functions, trigonometric functions, vectors, rectangular and%polar coordinates, and matrices and determinants.

Prerequisite(s): Geometry, Algebra 2

Length of Course: One year required for graduation

Year in School Taken: 11 or 12

Course Objectives/Details:
Coursework will include a thorough understanding and application of the following topics:

Angle measurement in degrees and radians Trigonometric Functions:
> Graphs
> As relatedtothePythagoreanTheorem
> As related to slope of a line
> Inverse functions and their graphs
> Computing values of functions at standard points
> Addition formulas and their proofs
> Half-angle and double-angle formulas

Graphing:
> Polar and rectangular coordinates

De nMoivre's theorem Word Problems:
> Laws of sines and cosines Trigonometry

Methods for Evaluating Student Performance: Evaluation of student performance is based on individual abilities, interests, and talents. Methods by which student progress is assessed will be through a variety and/or combination of%methods. The methods available include but are not limited to the following:
> Monthly review of work by education specialist (credentialed teacher)
> Portfolios
> Parent facilitator and education specialist observation
> Student demonstrations
> Student grades
> Student work samples
> Written Examinations
> Research Projects

Texts:

Larson, Precalculus With Limits A Graphing Approach,4th Ed.
McDougall-Littell
Precalculus with Limits: A Graphing Approach, 4th Ed. High School version
Order Number:333052
ISBN:978-0-618-39480-7
ISBN10:0-618-39480-X

Trigonometry, 5th ed. **and** Precalculus–Mathematics for Calculus (both texts)
Brooks/Cole Publishers (www.brookscole.com)
TrigonometryISBN 0534403921
Precaculus ISBN 0534434215 (4thEd.),
ISBN-10: 0534492770|ISBN-13:9780534492779(5th%Ed.)
Saxon Advanced Math
Copyright: 1998, Saxon Publishers
ISBN: 1565771273
Advanced Math Solutions Manual
ISBN: 1565770420
Saxon Calculus (text needed for the last 9 weeks of a-g Trig/PreCal course)
ISBN: 1565771990
Saxon Calculus: Solutions Manual
ISBN: 0939798352

This text/program is a two year program!
Student can move to Saxon Advanced Math upon satisfactory completion of Saxon Algebra 2 (2nd or 3rd edition only). Student must complete all 129 lessons in entirety and satisfactorily complete all tests in course to move on to the Saxon Advanced Math program.
a-g Geometry credit is granted upon completion of lesson 90, which is year one
of the two year Saxon Advanced Math program where the student completes one lesson every 2 days (odd numbered problems one day, even numbered the next).
a-g Trig/PreCal credit is granted upon completion of year two of the two year Saxon Advanced Math program. At the beginning of year two, student should go back to lesson 60 (repeating lessons 60-90) and complete lessons 60 through 127 of the Advanced Math Text, completing one lesson every 2 days (odd numbered problems one day, even numbered the next). During the last 9 weeks of the Trig/PreCal course, the student will move on to Saxon Calculus completing at least 27 lessons of the Saxon Calculus program. Student should be prepared for Calculus upon satisfactory completion.

NoteThe typical sequence course sequence for Saxon Math is: Saxon Alg 1 8th grade (or 9th)

Saxon Alg 2 = a-g Alg 2 9th (or 10th)
Saxon Adv Math, year 1 of 2 = a-g Geom 10th (or 11th)
Saxon Adv Math/Calculus year 2 of 2 = a-g Trig/PreCal 11th (or 12th) Saxon Calculus = a-g Calculus 12th

Advanced Mathematical Concepts:Precalculus with Applications,by Gordon-Holiday, Yunker, Vannatta,and Crosswhite
Glencoe McGrawGHill, 1999
ISBN:002834135X

Calculus:Concepts and Contexts, Single Variable,by Stewart/Stewart,James Brooks/Cole,1997
ISBN:053434450X

Calculus,by Stewart, James
Brooks/Cole Publishing, 1994
ISBN:0534217982

Precalculus Graphical,Numerical,Algebraic (6th ed. or more recent)
Authors:Demana,Waits,Foley,Kennedy
Addison Wesley/Pearson
ISBN:0-321-13196-7