Mathematics--Trigonometry

Course Description:

Trigonometry 1 Credit

Prerequisite: Algebra I, Geometry, and Algebra II

This course provides a strong foundation for work with functions that culminates with an introduction to the calculus topics of the derivative and the integral. Beginning with a review of basic trigonometry, the course study progresses to advanced topics including functions, identities, and trigonometric equations. Development of analytical geometry topics include a logical approach to the study of lines, conics, quadric surfaces, polar coordinates, and parametric equations. Students learn through presentations and exercises using graphs in one, two, and three dimensions to illustrate the concepts and provide a frame of reference for discussion.

The student also learns to:

- Find unknown measurements involving triangles .
- Determine the values of the trigonometric functions for any angle .
- Establish and use trigonometric identities .
- Graph trigonometric functions with and without a graphing calculator .
- Use the inverse trigonometry functions to find angle measures .

Plane Trigonometry

- Functions of an Acute Angle; Solution of Right Triangles/Trigonometric Functions of Any Angle
- Radian Measure; Mil Measure/Line Values and Graphs of Functions
- Fundamental Relations/Functions of Two Angles
- Oblique Triangles/Graphs of Functions
- Fundamental Formulas
- Straight Line
- Circle/Polar Coordinates/Conic Sections
- General Equation of the Second Degree in x and y
- Miscellaneous Curves
- Curves Representing Empirical Data
- Coordinates in Space
- Cylindrical, Spherical, and Polar Coordinates
- Solve equations involving the trigonometric functions .
- Graph functions in the polar plane .
- Perform operations with complex numbers .
- Recognize how trigonometry models our world.

Helpful tips and example problems show step-by-step solutions that aid in understanding and problem solving. Balanced exercises in each chapter provide ample opportunity for students to understand both the algebraic solution and practical application of problem solving.

Week 1

- **Trigonometry**

Trigonometry PACE 1133-Pages 1-18   pg. 19-20 **Check-Up #1** must be completed by Friday
Be sure your *Trig Workbook & Trig Constructions* are up-to-date *(One page per day)*

- **Trigonometry**

Trigonometry PACE 1133-Pages 1-18   pg. 19-20 Check-Up #1 must be completed by Friday
Be sure your *Trig Workbook & Trig Constructions* are up-to-date *(One page per day)*

Quiz #1 is on Friday

DIAGNOSTIC TESTS FOR ALL LEVELS
Thursday & Friday of the 1st Week

Students may share graphing calculators or use the calculator on their cell phones
Regular calculators can be used for most worksheets
2 Total Days of School

Week 1A

Quiz #1 is on Friday   Students may share graphing calculators or use the calculator on their cell phones
Regular calculators can be used for most worksheets
7 Total Days of School

Week 2

- **Trigonometry**

Trigonometry PACE 1133-Pages 21-34   pg. 35-36 **Check-Up #2** must be completed by Friday
Be sure your *Trig Workbook & Trig Constructions* are up-to-date *(One page per day)*

Trigonometry-pages19-20 Check-Up #1(Quiz #1).....Quiz #1 is on Monday, Aug. 28

Trigonometry-Pages 21-34 and pg. 35-36 Check-Up #2 (Quiz #2) Quiz #2 is on Friday   Students may share graphing calculators or use the calculator on their cell phones
Regular calculators can be used for most worksheets
12 Total Days of School

Week 3   WEEK 3 **Labor Day**

- **Trigonometry**

Trig PACE 1133-Pages 37-51   **Check-Up #3** must be completed by Friday

Pg. 52-53 Check-Up #3 and review for Self-Test.........Establish and use basic trigonometric identities

Be sure your *Trig Workbook & Trig Constructions* are up-to-date *(One page per day)*   Students may share graphing calculators or use the calculator on their cell phones
Regular calculators can be used for most worksheets
16 Total Days of School

Week 4

- **Trigonometry**

Trigonometry PACE 1133-Review for Self-Test... Memory Verse / Trig Identities Review for FINAL EXAM
Take SELF-TEST-pg. 54-56... must be completed with a grade of 90 or better before taking Final Exam

Be sure your *Trig Workbook & Trig Constructions* are up-to-date *(One page per day)*   Students may share graphing calculators or use the calculator on their cell phones
Regular calculators can be used for most worksheets
21 Total Days of School
FALL BREAK

Week 5

- **Trigonometry**

Trigonometry PACE 1133-Review for Self-Test... Memory Verse / Trig Identities Review

SELF-TEST-pg. 54-56... must be completed with a grade of 90 or better before taking Final Exam

Be sure your *Trig Workbook & Trig Constructions* are up-to-date *(One page per day)*   Students may share graphing calculators or use the calculator on their cell phones

Regular calculators can be used for most worksheets

26 Total Days of School

Week 6

- **Trigonometry**

Trigonometry PACE 1133-Pages 54-56   SELF-TEST and FINAL EXAM

SELF-TEST-pg. 54-56... must be completed with a grade of 90 or better before taking Final Exam

Be sure your *Trig Workbook & Trig Constructions* are up-to-date *(One page per day)*   Students may share graphing calculators or use the calculator on their cell phones

Regular calculators can be used for most worksheets

31 Total Days of School

Week 7

Columbus Day

- **Trigonometry**

Trigonometry PACE 1134-Continue work toward 1st Check-Up (pg. 19-20)

Complete the Trig Review Sheet over PACE 1133

Be sure your *Trig Workbook & Trig Constructions* are up-to-date *(One page per day-thru pg. 35)*   Students   may   share graphing calculators or use the calculator on their cell phones

Regular calculators can be used for most worksheets

35 Total Days of School

Week 8

- **Trigonometry**

Trigonometry PACE 1134- Pages 1-18   pg. 19-20

Check-Up #1 must be completed by Friday

Be sure your *Trig Workbook & Trig Constructions* are up-to-date *(One page per day)*   Students may share graphing calculators or use the calculator on their cell phones

Regular calculators can be used for most worksheets

40 Total Days of School

Week 9

- **Trigonometry**

Trigonometry PACE 1134- Pages 21-34   pg. 35-36

Check-Up #2 must be completed by Friday

Be sure your *Trig Workbook & Trig Constructions* are up-to-date *(One page per day)*   Students may share graphing calculators or use the calculator on their cell phones

Regular calculators can be used for most worksheets

45 Total Days of School

Week 10

- **Trigonometry**

Trigonometry PACE 1134- Pages 37-51   pg. 52-53

Check-Up #3 must be completed by Friday

Be sure your **Trig Workbook & Trig Constructions** are up-to-date *(One page per day- thru pg. 50)*   Students may share graphing calculators or use the calculator on their cell phones
Regular calculators can be used for most worksheets
50 Total Days of School

Week 11

- **Trigonometry**

Trigonometry PACE 1134- **SELF-TEST REVIEW**

SELF-TEST-pg. 54-56... <u>must be completed with a grade of 90 or better before taking Final Exam</u>

Be sure your **Trig Workbook & Trig Constructions** are up-to-date *(One page per day thru page 55)*

Terms and Definitions Quiz on Tuesday   Students may share graphing calculators or use the calculator on their cell phones
Regular calculators can be used for most worksheets
55 Total Days of School

Week 12

- **Trigonometry**

Trigonometry PACE 1134-

SELF-TEST-pg. 54-56... <u>must be completed with a grade of 90 or better before taking Final Exam</u>

Be sure your **Trig Workbook & Trig Constructions** are up-to-date *(One page per day thru pg. 60)*   Students may share graphing calculators or use the calculator on their cell phones
Regular calculators can be used for most worksheets
60 Total Days of School
20-24..........THANKSGIVING HOLIDAYS

Week 13

- **Trigonometry**

Trigonometry PACE 1135- **BEGIN**
Review Worksheets
FINAL TEST - PACE 1134 for Abbey on Monday... <u>must have a grade of 90 or better before moving to next PACE</u>

Be sure your **Trig Workbook & Trig Constructions** are up-to-date *(One page per day)*   Students may share graphing calculators or use the calculator on their cell phones
Regular calculators can be used for most worksheets
65 Total Days of School

Week 14

- **Trigonometry**

Trigonometry PACE 1135- **Continue Work in PACE...**
Review Worksheets

FINAL TEST - PACE 1134 for Abbey on Monday... <u>must have a grade of 90 or better before moving to next PACE</u>

Be sure your **Trig Workbook & Trig Constructions** are up-to-date *(One page per day)*   Students may share graphing calculators or use the calculator on their cell phones
Regular calculators can be used for most worksheets
70 Total Days of School

Week 15

- **Trigonometry**

Trigonometry PACE 1135-Continue to next Check-up

All Students are in PACE 1135

Be sure your *Trig Workbook & Trig Constructions* are up-to-date *(One page per day)*

Quiz over Terms and Formulas   Students may share graphing calculators or use the calculator on their cell phones
Regular calculators can be used for most worksheets
75 Total Days of School

CHRISTMAS HOLIDAYS

Week 16   WEEK 16 **New Year's Day**

- **Trigonometry**

Trigonometry PACE 1135……**Review Worksheets for** SEMESTER EXAM

SEMESTER EXAM... *must be completed with a grade of 80 or better before taking Final Exam*

Be sure your *Trig Workbook & Trig Constructions* are up-to-date *(One page per day)*   Students may share graphing calculators or use the calculator on their cell phones
Regular calculators can be used for most worksheets
80 Total Days of School

Week 17

- **Trigonometry**

Trigonometry PACE 1133-1134……**Review Worksheets for** SEMESTER EXAM

SEMESTER EXAM... *must be completed with a grade of 80 or better before taking Final Exam*

Be sure your *Trig Workbook & Trig Constructions* are up-to-date *(One page per day)*   Students may share graphing calculators or use the calculator on their cell phones
Regular calculators can be used for most worksheets
85 Total Days of School

Week 18   **END OF 1st SEMESTER**

- **Trigonometry**

Trigonometry PACE 1133-1134……**Review Worksheets………**SEMESTER EXAM

Semester Exam... must be completed with a grade of 80 or better

Be sure your *Trig Workbook & Trig Constructions* are up-to-date *(One page per day)*   Students may share graphing calculators or use the calculator on their cell phones
Regular calculators can be used for most worksheets
87 Total Days of School