

Course Title: Advanced Algebra and Trigonometry
Credit (Secondary): 1 credit

Board Approval Date: June, 2018

Grade Level / Course Summary with Big Ideas:

This course is designed to broaden the student’s view of mathematics through non-linear functions and probability. It will also enable the student to grasp the trigonometric principles, so that they may apply them to various fields of mathematics and science. Topics covered in this course include rational functions, counting methods and probability involving permutations and combinations, arithmetic and geometric sequence and series, trigonometric ratios, functions, graphs, identities and equations. This course is aligned with the PA Core Academic Standards in Mathematics.

Grade Level Modules (Units):

Suggested Timeline
of Weeks or # of Class Periods/Lessons

1. Exponential Growth and Logarithmic Functions	14 Days
2. Rational Functions	15 Days
3. Counting Methods and Probability	13 Days
4. Sequence and Series	15 Days
5. Trigonometric Ratios and Functions	12 Days
6. Trigonometric Graphing	12 Days
7. Trigonometric Identities and Equations	8 Days

Learning Activities/Modes of Formative and Summative Assessment:

Large group instruction
Small group work with differentiated instruction
Teacher Observations
Computer Simulations and Graphing utilities
Tests and Quizzes

Primary Instructional Resources:

Algebra 2 (Glencoe, 2014)

Acceptable Internet websites and applications including but not limited to...

- Connected.mcgraw-hill.com
- KhanAcademy
- Aleks
- YouTube

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