Course Overview

Content Area:
Course(s):
Time Period: **Year**
Length: **180**
Status: **Published**

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Sequence- Unit Titles, Summaries, and Number of weeks per unit (total = 18 semester/36 year)

Unit 1: Prerequisite Skills (Chapters 1, 2, 3) ~ 4 weeks

- Access algebra skills previously mastered to prepare for upcoming objectives
- Evaluate, combine, compose, and graph functions
- Sketch rational functions using their asymptotes, zeros, intercepts, vertices and other important pieces of polynomials
- Apply knowledge of exponential and logarithmic functions to studies in areas such as finance, science, and social studies (i.e. interest, growth, and decay, etc.)

Unit 2: Trigonometric Functions (Chapter 4) ~ 6.5 weeks

- Students will be able to arrive at a complete understanding of trigonometry via the unit circle, right triangles and other assorted functions

Unit 3: Analytic Trigonometry (Chapter 5) ~ 6.5 weeks

- Students will be able to independently use their learning to Verify and simplify trigonometric identities and use those identities to solve equations

Unit 4: Additional Topics in Trigonometry (Chapter 6) ~ 5 weeks

- Students will be able to independently use their learning to find all of the information associated with oblique triangles by application of the Laws of Sines and Cosines and Heron's Formula

Unit 5: Matrices & Determinants (Chapter 8) -

- Students will be able to perform matrix operations, identify matrices, find inverse and determinant of square matrices and use matrices to solve systems of equations.

Unit 6: Sequences, Series & Probability (Chapter 9) ~ 5.5 weeks

- Students will be able to independently use their learning to determine terms in sequences and series, to use permutations and combinations to determine outcomes, and to predict the probability of real world events happening

Unit 7: Topics in Analytic Geometry (Chapter 10) ~ 2.5 weeks

- Students will be able to independently use their learning to Utilize algebraic skills to

determine equations of conic sections and graph them with polar coordina

Unit 8: Analytic Geometry in Three Dimensions (Chapter 11) ~ 2.5 weeks

- Students will be able to independently use their learning to Understand the importance of three-dimensional space and its relationship to other topics in mathematics

Unit 9: Limits & An Introduction to Calculus (Chapter 12) ~ 2.5 weeks

- Students will be able to independently use their learning to Evaluate limits via substitution, rationalizing, dividing out and graphing

Reporting Student Progress (link to NB's Assessment System)
All courses follow a balanced assessment system with Practice and Assessments.
Each category includes formative, summative and alternative assessments.

Accommodations and Modifications (link to menu)
Integrated accommodations and modifications for special education students, English language learners, students at risk of school failure, gifted and talented students, and students with 504 plans.