



Course Description: Math Analysis/Trig

In this course, students will become proficient in the topics of mathematical analysis, linear algebra, and trigonometry. Emphasis is placed on applications of algebraic and trigonometric concepts. Through the mastery of these topics, students will develop the level of critical thinking, reasoning, and multi-step problem solving skills necessary for success in higher-level mathematics.

Content

1. Review of algebra skills
 - Exponents and radicals
 - Operations with polynomials and rational expressions
 - Factoring and quadratic equations
 - Linear inequalities
2. Functions, graphing, and transformations
3. Polynomial functions and the Fundamental Theorem of Algebra
4. Exponential and logarithmic functions
5. Linear and nonlinear systems
6. Matrices, determinants, and their applications
7. Trigonometric functions and the unit circle
8. Analytic trigonometry
9. Oblique triangles, polar coordinates, and vectors
10. Sequences, series, and probability
11. Conic sections and parametric equations

Textbook: Precalculus, 4th ed. - Blitzer (2010)

Prerequisites: Algebra 2 or Integrated Math 3 with a C or better

High Bluff Academy is accredited by the Western Association of Schools and Colleges (WASC). The above course is approved by the University of California system (A-G) and the National Collegiate Athletic Association (NCAA).