Course Description:

Integrated Math 3 Honors is a challenging course designed for students who excel in math. Students in this course easily grasp higher-level concepts and embrace a rigorous curriculum. Integrated Math 3 Honors is the third course of an accelerated three-year integrated math sequence that also includes Honors Pre-Calculus. This course is a college prep course that follows the Integrated Pathway in the Common Core State Standards. Integrated Math 3 Honors will explore in greater depth and rigor the standards of Integrated Math 3 as well as additional Honors Pre-Calculus topics. Students will analyze properties, features, and structures (roots, solutions of systems, intervals of increasing/decreasing, asymptotic behavior, composition, etc.) of polynomial functions, rational functions, and trigonometric functions. Students will deepen their understanding and application of trigonometry and prove relationships between trigonometric functions. All types of functions will be used to model real-life situations. Students will build connections between algebra, geometry, and trigonometry through investigations with volume and area. Students will explore parametric functions, polar functions and limits of functions. Students will use statistical methods and the standard normal curve to make inferences and draw conclusions. Students will be expected to work collaboratively, individually and demonstrate their learning through the Standards of Mathematical Practice. Students will be exposed to rich instruction that develops their conceptual understanding, procedural skill, problem-solving skills, critical thinking abilities, and strengthen situational analysis abilities.

Unit list:

> Unit 1: Polynomial Functions
> Unit 2: Rational Functions
> Unit 3: Modeling with Geometry
> Unit 4: Trigonometric Functions
> Unit 5: Modeling with Functions
> Unit 6: Polar and Parametric Functions
> Unit 7: Statistics
> Unit 8: Limits & Introduction to Derivatives

Textbook:
Mathematics Vision Project (MVP) *Integrated Math 3 Honors* Modules, San Dieguito Union High School District Custom Edition, 2021.

Prerequisite:
Integrated Math 2 Honors or Integrated Math 2 + Summer Bridge

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).