



Course Description: Integrated Math 2 Honors

Integrated Math 2 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 2 Honors is the second course of an accelerated three-year integrated math sequence that also includes Honors Pre-Calculus. This course is a college prep course and follows the Integrated Pathway in the Common Core State Standards. Integrated Math 2 Honors will explore in greater depth and rigor the standards of Integrated Math 2 as well as additional Honors Pre-Calculus topics. Students will analyze properties, features, and structures (roots, solutions of systems, intervals of increasing/decreasing, etc.) of quadratic functions, inverse functions, logarithmic functions, absolute-value functions, piece-wise functions, circles, conic sections, complex numbers, and vectors. Multiple representations will be used to connect numerical, algebraic, and graphical scenarios to real-life situations. Students will formalize geometric theorems, create, and prove conjectures about two-dimensional geometric shapes (including triangles, quadrilaterals, and circles). Students will calculate probability for independent, dependent, and conditional events through multiple representations (two-way tables, tree diagrams, Venn diagrams), experimental and theoretical models. Students will begin trigonometry by exploring similarity in right triangles and extend their knowledge of trigonometry to the unit circle. 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: Solving Quadratic and Other Equations
- Unit 2: Functions, Features, and Inverses
- Unit 3: Logarithmic Functions
- Unit 4: Geometric Figures
- Unit 5: Similarity & Right Triangle Trigonometry
- Unit 6: Circles: A Geometric Perspective
- Unit 7: Circles and Other Conic Sections
- Unit 8: Probability

Textbook:

Mathematics Vision Project (MVP) *Integrated Math 2 Honors* Modules, San Dieguito Union High School District Custom Edition, 2021.

Prerequisite:

Integrated Math 1 Honors or Integrated Math 1 + 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).