

STEM - Math Endorsement

You must take the following three courses:

Algebra I	Geometry	Algebra 2
<p>In high school Algebra I, students deepen their understanding of relations and functions and expand their repertoire of familiar functions. Students use technological tools to represent and study the behavior of linear and quadratic functions, among others. They learn to combine functions, express them in equivalent forms, compose them, and find inverses where possible. Algebra I also provides students with insights through the content strands of linear functions, equations, and inequalities, quadratic functions and equations, exponential functions and equations, and number and algebraic methods.</p>	<p>High school students should develop facility with a broad range of ways of representing geometric ideas—including coordinates, networks and transformations. Students should recognize connections among different representations, thus enabling them to use these representations flexibly. Students will expand their understanding through other mathematical experiences through the Geometry content strands of Geometric Structure, Patterns, Dimensionality and Geometry of Location, Congruence and the Geometry of Size, and Similarity and the Geometry of Shape.</p>	<p>In Algebra II, students have opportunities to build on Algebra I and Geometry experiences, both deepening their understanding of relations and functions and expanding their repertoire of familiar functions. Students use technological tools to represent and study the behavior of polynomial, exponential, rational, and periodic functions, among others. They learn to combine functions, express them in equivalent forms, compose them, and find inverses where possible. As they do so, they come to understand the concept of a class of functions and learn to recognize the characteristics of various classes.</p>

You must also take at least TWO courses from the following list.

AQR	Pre-Calculus	AP Statistics	AP Calculus AB
<p>Advanced Quantitative Reasoning includes the analysis of information using statistical methods and probability, modeling change and mathematical relationships, and spatial and geometric modeling for mathematical reasoning. Students learn to become critical consumers of real-world quantitative data, knowledgeable problem solvers who use logical reasoning, and mathematical thinkers who can use their quantitative skills to solve authentic problems.</p>	<p>Students use symbolic reasoning and analytical methods to represent mathematical situations, to express generalizations, and to study mathematical concepts and the relationships among them. Students use functions, equations, and limits as tools for expressing generalizations and as means for analyzing and understanding a broad variety of mathematical relationships. Students also use functions and symbolic reasoning to represent and connect ideas in geometry, probability, statistics, trigonometry, and calculus and to model physical situations.</p>	<p>Students are introduced to major concepts and tools for collecting, analyzing, and drawing conclusions from data. This course prepares students for the College Board AP Statistics Examination for possible college (one-semester, non-calculus based statistics) credit. For Advanced Placement courses, please access more information on the Internet at the web address http://apcentral.collegeboard.com/.</p>	<p>Students explore functions, graphs, limits, derivatives, and integrals. This course prepares students for the College Board AP Calculus AB Examination for possible college credit (1st semester calculus). For Advanced Placement courses, please access more information on the Internet at the web address http://apcentral.collegeboard.com/.</p>

