

MATHEMATICS

The WHS Mathematics Department offers a flexible program of study that meets the needs of all students in the 21st century. Consistent with WHS philosophy, the mathematics department offers a variety of learning experiences and assessment opportunities through an assortment of activities. Students are taught to work independently as well as collaboratively as members of a team. Students engage in using manipulative materials, data collection for mathematical modeling, and investigative labs to discover mathematical concepts. Nightly homework, problem sets, course notes, student presentations, projects, posters and traditional testing are utilized to assess the student's mathematical knowledge. All courses examine mathematical concepts in four interconnected representations: analytically, graphically, numerically and verbally. A graphing calculator is an essential tool in understanding these connections. The preferred calculators are the Texas Instrument's TI-8x.

The Massachusetts Board of Higher Education has adopted new admissions requirements in mathematics. To gain acceptance in the UMASS system students must take four years of high school math, including at least one math course in their senior year. WHS has adopted the four year math requirement for graduation; however, students are encouraged but not required to take math their senior year.

WHS Mathematics Department offers 3 programs of study with multiple options:

PROGRAM		Accelerated Program***** (ACC)		Honors (H)		College Preparatory (CP)	
General Description		The Accelerated Program of Studies offers swiftly paced, extensive courses by mathematical strand. Concepts are investigated, discovered and examined in detail.		The Honors Program of Studies offers moderately paced, comprehensive courses by mathematical strand. Concepts are investigated, discovered and presented in depth.		The College Preparatory Program of Studies offers appropriately paced, complete courses by mathematical strand. Concepts are investigated, presented and repetitively practiced.	
		Primary	Taken Concurrently	Primary	Taken Concurrently	Primary	Taken Concurrently
Program Sequence by Year	1*	Algebra 2		Algebra 1		Algebra 1	
	2**	Geometry		Geometry	Algebra 2 Required	Geometry	Algebra 2 Required
	3	Pre-Calculus	Optional AP Statistics*** Computer Science****	Pre-Calculus	Optional AP Statistics*** Computer Science****	Algebra 3	
	4	Options: AP Calculus*** AP Statistics*** Computer Science****		Options: AP Calculus*** AP Statistics*** Computer Science****		Options: Discrete Mathematics Computer Science**** Honors Pre-Calculus	
Student Profile		Designed for the advanced mathematics student who is highly motivated and especially interested in mathematics.		Designed for the proficient student who is motivated or interested mathematics.		Designed for the student who benefits from a sustained focus on major concepts in multiple perspectives.	
PRE-REQUISITE		C or better in previous accelerated course; or A; or better in previous honors course and teacher recommendation.		C or better in previous honors course; or A; or better in previous college preparatory course and teacher recommendation.		Passing grade in the previous course is required before continuing to the next course in the sequence.	

* Freshmen are evaluated with several different criteria and placed in the appropriate program.

** Sophomores are required to enrolled in or completed Algebra 1, Geometry and Algebra 2 in preparation for the 10th Grade Math MCAS. If a sophomore has not successfully completed Algebra 1, they will take Algebra 1 and Geometry.

*** AP courses: Special requirements and conditions exist. See course description for details.

**** Computer Science is a mixed level course offering a wide variety of curricula that can be taken for AP, honors or college preparatory credit. Computer Science counts towards a math or lab science elective.

***** During the course selection process, if an Accelerated course becomes oversubscribed, the WHS Administration reserves the right to administer a placement test to aid in determining the final Accelerated course roster.