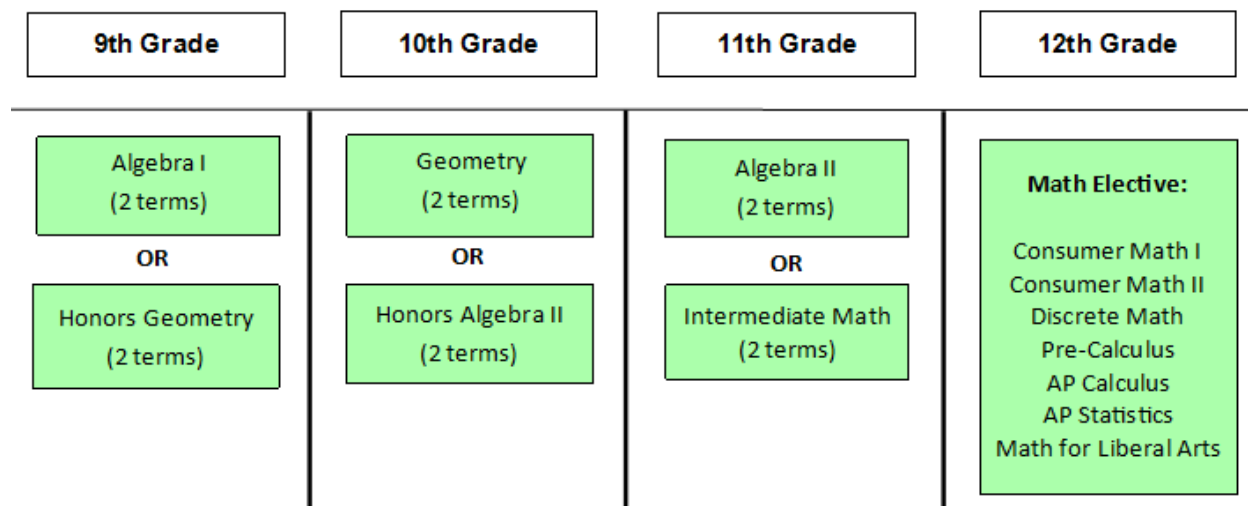


MATHEMATICS

Recommended Mathematics Course Flow



Subject	Course#	Credits	Grade Level				Prerequisites and related info
			9	10	11	12	
Foundations of Algebra – Part 1	202222	0.5	X				Meets general elective credits
Foundations of Algebra - Part 2	202223	0.5	X				Meets general elective credits
Algebra I (2 terms)	203111 203112	1	X	X	X	X	None
Honors Algebra I (2 terms)	203141 203142	1	X	X			None
Geometry (2 terms)	203411 203412	1	X	X	X	X	Algebra I
Honors Geometry (2 terms)	203151 203152	1	X	X	X		Algebra I or Honors Algebra I
IGESS Part I	000030 000031	1	X				Honors Algebra I and teacher recommendation. Must be taken with IGESS Part 1 (See Math section). Available for West students only.
Algebra II (2 terms)	204111 204112	1		X	X	X	Geometry or consent of Department Chair.
Honors Algebra II (2 terms)	000041 000042	1		X	X	X	Honors Geometry, Honors Algebra I
Intermediate Math (2 terms)	202211 202212	1			X	X	Algebra I
ELECTIVES							
Consumer Math I	201411	0.5				X	Algebra & Geometry
Consumer Math II	201421	0.5				X	Algebra & Geometry
Discrete Mathematics (2 terms)	205411 205412	1			X	X	Geometry and Algebra II
Pre-Calculus (2 terms)	205311 205312	1			X	X	Geometry and Algebra II
AP Calculus (3 terms)	205811 205812 205813	1.5			X	X	Pre-Calculus

AP Statistics (3 terms)	206331 206332 206333	1.5			X	X	Algebra II
Math for the Liberal Arts (MAT110)	205141	0.5		X	X	X	Compass Algebra or higher score of 50+ OR ACT Math score of 19+ and Algebra II 3 college credits
Math Literacy	202231 202232	1				X	Algebra I, Geometry and a third math credit. This course meets general elective credits and does not count towards math credits for

MATHEMATICS COURSE DESCRIPTIONS

*****IMPORTANT NOTE***** Students should enroll each year in math classes which are suited to their abilities and interests. Students who are planning to continue their education after graduation from high school should consult the institution of their choice to determine what mathematics courses are required for admission.

Foundations of Algebra- Part 1 **202222** **0.5 credits**

Foundations of Algebra- Part 2 **202223** **0.5 credits**

Foundations of Algebra will provide students opportunities to expand their understanding of the building blocks of all mathematics: number sense, mathematical mindset, and formulating and reasoning about expressions and equations. Various instructional strategies will be employed to ensure students are prepared for Algebra I. *This course meets general elective credits and does not count towards math credits for graduation.*

Algebra I **203111, 203112** **1 credit**

This course extends students' knowledge and understanding of expressions, equations, inequalities, linear & exponential relationships, statistics, and quadratic functions. This course prepares students for Geometry and Algebra 2. A Texas Instruments TI-83+, TI-84, or TI Nspire graphing calculator is recommended.

Honors Algebra I **203141, 203142** **1 credit**

This rigorous course delivers an honors curriculum that is beyond the scope of Algebra 1 and prepares students for Honors Geometry and Honors Algebra 2. The course guides students in the development of critical thinking skills and algebraic problem solving skills. A Texas Instruments TI-83+ TI-84, or TI Nspire graphing calculator is recommended.

Geometry **203411, 203412** **1 credit**

An integrated course in plane and solid geometry. This course is designed for the development of logical and deductive reasoning through the study and analysis of facts pertaining to various two and three dimensional figures. A Texas Instruments TI-83+, TI-84, or TI Nspire graphing calculator is recommended.

Honors Geometry **203151, 203152** **1 credit**

Geometry Honors includes the study of plane and solid Euclidean Geometry and coordinate Geometry. This course is designed to be a rigorous college preparatory honors course in which students gain an overall appreciation of mathematics as a discipline, and expose students to the subtlety and variety of mathematics many facets: problems, ideas, methods and solutions. A Texas Instruments TI-83+, TI-84, or TI Nspire graphing calculator is recommended.

IGESS Part 1 **000030, 000031** **1 credit**

Integration of Honors Geometry, which includes the study of plane and solid Euclidian Geometry and Coordinate Geometry, and Earth and Space Science which offers insight into the environment on Earth as well as the Earth's environment in space. This course is designed to be a cohesive Math and Science class, emphasizing the integration of technology and engineering while collaboratively preparing these students with the college and career readiness skills needed for the 21st century. This course will utilize inquiry-based instruction and Problem-Based Learning. There will be a lab component to this course which will be taught simultaneously within the 90 minute block of time. This is a year-long course and students must take both IGESS 1 and IGESS 2 to earn credit.

Algebra II 204111, 204112 1 credit
Reviews first year Algebra from a more advanced point of view with additional study in quadratic equations, systems of equations and exponentiation. During the second term additional topics are studies in permutations, combinations, probability and progressions, and a study of the real number system. A Texas Instruments TI-83+, TI-84, or TI Nspire graphing calculator is recommended.

Honors Algebra II 000041, 000042 1 credit
Honors Algebra II course topics include field properties and theorems; set theory; operations with rational and irrational expressions; factoring of rational expressions; in-depth study of linear equations and inequalities; quadratic equations; solving systems of linear and quadratic equations; graphic of constant, linear, and quadratic equations; properties of higher degree equations; and operations with rational and irrational exponents. A Texas Instruments TI-83+, TI-84, or TI Nspire graphing calculator is recommended.

Intermediate Mathematics 202211, 202212 1 credit
Topics covered are: computational skills; algebraic skills such as solving equations, graphing, polynomials, quadratic equations; basic geometric concepts and measurement and basic probability and statistics concepts. A Texas Instruments TI-83+, TI-84, or TI Nspire graphing calculator is recommended.

MATHEMATICS ELECTIVE COURSE DESCRIPTIONS

Consumer Mathematics I 201411 0.5 credits
Consumer Mathematics II 201421 0.5 credits

Designed to meet the students' current consumer needs as well as anticipated future needs. Some topics covered are money management, automobile ownership, personal income, banking, taxes, insurance, investments and purchasing of consumer goods. A Texas Instruments TI-83+, TI-84, or TI Nspire graphing calculator is recommended.

Discrete Mathematics 205411, 205412 1 credit
Designed to lay the groundwork for mathematics applications in computer science, business and applied mathematics. It will help prepare students for non-technical careers which use modern technology. Matrices, determinants, probability, logic theory, graph theory and statistics will be used to create models for solving problems. A Texas Instruments TI-83+, TI-84, or TI Nspire graphing calculator is recommended.

Pre-Calculus 205311, 205312 1 credit
A study of trigonometric functions, geometric concepts from the analytic view of algebraic procedures, functions and calculus underpinnings. Technology will be used for applications and problem solving. A Texas Instruments TI-83+, TI-84, or TI Nspire graphing calculator is recommended.

AP Calculus 205811, 205812, 205813 1.5 credits
Advanced Placement Calculus is a three term course intended for students who have a thorough knowledge of college preparatory mathematics including algebra, geometry and pre-calculus. The course includes limits, differentiation and integration with problem solving and applications. A Texas Instruments TI-83+, TI-84, or TI Nspire graphing calculator is recommended. Students are strongly encouraged to take the National CEEB Advanced Placement Exam. There is an additional fee for materials.

AP Statistics

206331, 206332, 206333

1.5 credits

Advanced Placement Statistics is a three term course introducing students to the major concepts and tools for collecting, analyzing and drawing conclusions from data. It emphasizes sound statistical thinking rather than routine procedures. Students will be exposed to several broad conceptual themes of Statistics such as exploring data, planning a study, modeling and anticipating patterns and statistical Inference. A Texas Instruments TI-83+, TI-84, or TI Nspire graphing calculator is recommended. Students are strongly encouraged to take the National CEEB Advanced Placement Exam. There is an additional fee for materials.

Math for the Liberal Arts (MAT110) 205141

0.5 credits

A mathematics course designed for the liberal arts student. The course covers a broad spectrum of topics designed to help students survey and develop skills that lead to an appreciation of the value and uses of mathematics. The course will include four units. The first three will be: Unit 1: Problem Solving, Sets and Logic, Unit 2: Counting Methods and Probability and Unit 3: Statistics. The fourth unit will be chosen from the following topics: Numeration Systems and Number Theory, Consumer Math (Mathematics of Finance), Social Choice and Decision Making. Prerequisite for this course includes: Compass Algebra or higher score of 50+ OR ACT Math score of 19+ This course awards college credit.

Math Literacy 202231, 202232

This course is designed for seniors who will be non-math majors in college. The goal of this course is to prepare students for success in non-remedial, postsecondary math classes. The topics in the course include numeracy, proportional reasoning, algebraic reasoning, functions, geometry, statistics, and student success strategies. When completed, the successful student will develop mathematical maturity through problem solving, critical thinking and writing. This course is computer enhanced. This course meets general elective credits and does not count towards math credits for graduation.