

# IS THIS MATHEMATICS COURSE RIGHT FOR YOU?

## FREQUENTLY ASKED QUESTIONS

**What math courses do I need to take in high school?** All students need to have 4 math credits to graduate. Required courses are the successful completion of an Algebra 1 course (or Algebra 1 Honors) and a Geometry course (or Geometry Honors). A sample sequence is provided as to what courses you might expect to take in high school.

ZHS TYPICAL MATHEMATICS SUGGESTED COURSE PROGRESSION						
	Community/ Technical/ Military			4 year University Degree		
	Average Math Grades and Test Scores		Above Average Math Grades and Test Scores	Average or Above Math Grades and Test Scores	Advanced Math Grades and Test Scores	Double Advanced Math Grades and Test Scores
<b>Freshman</b>	Algebra 1		Algebra 1 Honors	Algebra 1 or Algebra 1 Honors	Geometry Honors	Algebra 2 Honors
<b>Sophomore</b>	Liberal Arts Math	Geometry	Geometry Honors	Geometry or Geometry Honors	Algebra 2 Honors	Pre-Calculus/AP Statistics
<b>Junior</b>	Geometry	Algebra II	Algebra 2 Honors	Algebra 2 or Algebra 2 Honors	Pre-Calculus	AP Calculus
<b>Senior</b>	MCR	Prob and Stats	Prob/Stats H/ Pre-Calculus/ Dual Enrollment	Prob/Stats H/ Pre-Calculus/Dual Enrollment	AP Calculus/AP Statistics	AP Statistics

**Do I need to take math all 4 years if I took either Algebra or Geometry in middle school?** The requirement is 4 math credits to graduate. If you successfully complete Algebra 1 or Geometry during middle school you technically might not need math all four years of high school (but we highly recommend you take a math every year!)

**What does it mean if a course is weighted?** GPA is computed in the following manner. For un-weighted classes an A=4 points, B=3, C=2, D=1, and F=0 points. To compute GPA add up the points you earned and divide by the number of classes. Ex if you received 2 A's, 2 B's and 2 C's your GPA would be  $(4+4+3+3+2+2)/6$  equals  $18/6 = 3.0$ . Weighted classes come in two forms. For AP/Dual Enrollment courses, A=5, B=4, C=3, D=2, and F=0 and for Honors courses A=4.5, B=3.5, C=2.5, D=1.5, and F=0. Graduation requirements are based off of the UNWEIGHTED GPA.

Course	Scale	Course	Scale
Algebra 1A/1B	4.0	Liberal Arts 2	4.0
Algebra 1	4.0	Math for College Readiness	4.0
Algebra 1 Honors	4.5	Pre-Calculus	4.5
Geometry	4.0	Calculus Honors	4.5
Geometry Honors	4.5	AP Calculus (AB/BC)	5.0
Algebra 2	4.0	Probability and Statics Honors	4.5
Algebra 2 Honors	4.5	AP Statistics	5.0
Liberal Arts	4.0	Dual Enrollment	5.0

**Can I waiver into a course?** Your parent or guardian can request a waiver into a course. The math department puts tremendous thought and effort into making the correct placement recommendation for each student and highly recommends you adhere to the teacher supplied recommendation.

**Can I take two math course at once?** You can take two courses at a time but the recommendation is that you consult with your counselor or math teacher to ensure you can successfully handle the coursework.

**Can I take dual enrollment math courses?** You can take dual enrollment courses but students are required to complete all PHSC admission requirements. Dual enrollment requests can be completed by working through your grade-level counselor.

## SPECIFIC COURSE NOTES

**Algebra 1/Algebra 1 Honors**– The fundamental purpose of this course is to formalize and extend the mathematics that students learned in the middle grades. The critical areas, called units, deepen and extend understanding of linear and exponential relationships by contrasting them with each other and by applying linear models to data that exhibit a linear trend, and students engage in methods for analyzing, solving, and using quadratic functions. Algebra 1 students become fluent in solving characteristic problems involving the analytic geometry of lines, such as writing down the equation of a line given a point and a slope. Such fluency can support them in solving less routine mathematical problems involving linearity, as well as in modeling linear phenomena (including modeling using systems of linear inequalities in two variables)

**Geometry/Geometry Honors**- This course is intended to progress after the completion of Algebra 1. The fundamental purpose of the course in Geometry is to formalize and extend students' geometric experiences from the middle grades. Students explore more complex geometric situations and deepen their explanations of geometric relationships, moving towards formal mathematical argument. This course is a graduation requirement.

**Algebra 2/Algebra 2 Honors** – This course is intended to be taken after the successful completion of Algebra 1 and Geometry. The course extends the knowledge gained in Algebra 1 from linear to non-linear functions, equations, and expressions. Algebra 2 also includes the beginning teachings of Trigonometry, Probability, and Statistics.

**Liberal Arts 1 or 2** – This course is typically intended for 10<sup>th</sup> or 11<sup>th</sup> grade students who need additional time to fully grasp Algebra 1 material before or after moving on to Geometry. Course content includes select topics from both Algebra 1 and Geometry.

**Pre-Calculus Honors**–This course is required prior to taking AP Calculus. It will cover a more advanced look into the Algebra 2 content, trigonometry. Algebra 2 or Algebra 2 Honors is a prerequisite for this course.

**AP Calculus** – The course requires a student sit for the AP Exam (or repay the school the AP exam fee). Students who take this course are adept at both math and study skills and are looking to pursue a STEM major in college. AP Calculus AB is equivalent to a Calculus 1 course in college and AP Calculus BC is equivalent to both a Calculus 1 and Calculus 2 course in college.

**Probability and Statistics Honors** – This course is an introduction to probability and data analysis. Students will use appropriate techniques to display data, study patterns, test hypotheses, and draw conclusions from data. The use of a **scientific calculator with probability functions** is required. Basic but strong mathematical knowledge as well as strong reading skills are needed. Algebra 2 is a course prerequisite.

**AP Statistics** – This course requires a student sit for the AP exam (or repay the school the AP exam fee). **READING** is a necessity for success in AP Stats so students enrolling should possess strong reading skills as well as strong math skills.

**Math for College Readiness** – The course is typically taken by students to meet their 4<sup>th</sup> year math requirement. This course serves to re-enforce the content learned in Algebra 1 and Algebra 2. Many students who take this course are preparing to take College Algebra at the junior college level. This class is geared to students who are lacking the math testing requirement.

**Dual Enrollment (DE)** –. Students are still allowed to complete the admission process at PHSC and take mathematics courses at PHSC campuses (with the school board paying the course fee). In the past many students indicate they intend to take DE mathematics courses but fail to apply in a timely manner to take the course. If students intend to go this route they need to meet PHSC and Pasco County School DE application timelines!