



## Paul Duke STEM High School - Academic Pathways



The table below displays example academic pathways for each content areas. A student can be on the standard pathway in one subject and on a more advanced pathway in another subject. While there is room for flexibility and deviation, the table serves as a guide for the most common sequences students complete during their time at Paul Duke STEM High School. Please contact your student's counselor if you have specific questions.

Subject/Content Area	Academic Pathway	9 <sup>th</sup> Grade	10 <sup>th</sup> Grade	11 <sup>th</sup> Grade	12 <sup>th</sup> Grade
<b>Language Arts</b> (4 years of courses required for graduation)	Standard	9 <sup>th</sup> Grade Literature & Composition Paired with Biology	10th Grade Literature	11 <sup>th</sup> Grade American Literature	12th Grade World Literature <u>OR</u> Dual Enrollment
	Advanced/AP Pathway	9 <sup>th</sup> Grade Literature & Composition	AP Seminar	AP Language & Composition	AP Literature & Composition <u>OR</u> Dual Enrollment
<b>Math</b> (4 years of courses required for graduation)	Standard (Students who took 8th Grade Math)	Algebra: Concepts & Connections	Geometry: Concepts & Connections	Advanced Algebra <u>OR</u> Enhanced Algebra & AP PreCalculus	PreCalculus <u>OR</u> Advanced Financial Algebra <u>OR</u> Stat Reasoning <u>OR</u> AP Statistics <u>OR</u> Dual Enrollment
	Advanced/AP Pathway (Students who took Enhanced 8th Grade Math and Algebra: C&C)	Geometry: Concepts & Connections	Adv. Algebra: Concepts and Connections	PreCalculus <u>OR</u> Enhanced Advanced Algebra & AP PreCalculus	Calculus <u>OR</u> AP Calculus AB <u>OR</u> AP Calculus BC <u>OR</u> Calculus <u>OR</u> Dual Enrollment
		Accelerated Geometry: Concepts & Connections	Enhanced Adv. Algebra and AP Precalculus: Concepts and Connections	AP Calculus AB <u>OR</u> AP Calculus BC	Georgia Tech Calculus <u>OR</u> Multivariable Calculus <u>OR</u> Dual Enrollment
<b>Science</b> (4 years of courses required for graduation)	Standard	Biology Paired with 9 <sup>th</sup> Grade Literature & Composition	Chemistry	Physics	4 <sup>th</sup> Year Science Elective <u>OR</u> AP Science <u>OR</u> Dual Enrollment
	Advanced/AP Pathway	Biology Paired with 9 <sup>th</sup> Grade Lit. & Composition <b>AND</b> Chemistry (2 Science classes taking 2 periods)	AP Biology <u>OR</u> AP Chemistry	AP Physics 1	AP Science <u>OR</u> Dual Enrollment
<b>Career &amp; Technical Education</b> (4 years of courses recommended for graduation)	Paul Duke STEM offers 9 Career and Technical Education Pathways within our 3 STEM Programs. Please see the reverse side for details	Intro to Software Technology <i>and</i> Intro to Hardware (2 credits) <u>OR</u> AP Computer Science Principles with embedded Introduction to Software Technology (2 credits in 1 period) <i>One of these options is REQUIRED for all Paul Duke STEM 9<sup>th</sup> grade students.</i>	Students complete a 3-course pathway from the 9 Career and Technical Education Pathways offered in our three STEM Programs.  Our goal is that all students complete a 3-course pathway, pass an End of Pathway Assessment, and Senior Internship, which demonstrates a unique technical experience to complement their academic pathway work.	<b>SENIOR EXPERIENCE &amp; EXHIBITION (SEE)</b> Senior Internship <u>OR</u> Work Based Learning <u>OR</u> AP Research  All graduates are expected to complete a Senior Experience and Exhibition (SEE) as a component of their CTE Pathway.	
<b>Social Studies</b> (3 years of courses required for graduation)	Standard	None Required	World History Paired with 10 <sup>th</sup> Grade World Literature	US History	Economics <b>AND</b> American Government & Civics
	Advanced/AP Pathway	AP Human Geography or None	AP World History	AP US History	AP Macroeconomics <b>AND</b> AP American Government & Civics
<b>World Language</b> (Students planning to go to college should take two or three years)	Paul Duke STEM offers Spanish and French on-campus and other options via Gwinnett Online Campus.	Paul Duke STEM offers 5 years of French and Spanish on-campus. Students are recommended to take 3-4 years between middle and high school if applying to 4-year university. It is highly recommended that students complete their World Language experience in consecutive years, including the transition from Middle School into High School. Graduating seniors can achieve the Seal of Biliteracy, which recognizes a high level of proficiency in speaking, reading, and writing in one or more languages in addition to English.			
<b>Physical Education</b>	1 year of Health and Physical Education is required.	** Health and Personal Fitness	Optional Electives including Weight Training, Body Sculpting, Team Sports, and Recreational Games		
<b>Fine Arts</b> (Students should consider multiple years of Fine Arts)	Paul Duke STEM offers Visual Arts, Band, Orchestra, Music Tech, Dance, and Theater.	Fine Arts elective choices include courses in Band, Orchestra, Music Technology, Dance, Theater, and Visual Arts. Students are recommended to take 3-4 years if applying to 4-year university. In Georgia, high school students can achieve a Fine Arts Diploma Seal while completing a pathway in dance, music, theater/film, and/or visual art. The diploma seal is a signal that a student is prepared to participate in the creative economy.			

- \*\* All students must complete Health & Personal Fitness prior to starting their Junior year. These courses are required for graduation. Counselors can assist with scheduling.
- **Graduation Requirements:** Students must earn 23 credits in order to graduate. The breakdown for credits that must be earned is as follows: 4 Math credits, - 4 Science credits, 4 Language Arts Credits, 3 Social Studies Credits, Health + Personal Fitness, 3 electives within CTE/World Language/or Fine Arts, and 4 additional general electives
- The table above does not include course level designations such as College Prep, Honors, or Gifted. Those designations will be present on all course requests and schedules.