West Springfield High School 2025 - 2026

Math Department

West Springfield Department Chair is: **Jenny Walker - jlwalker1@fcps.edu** The Curriculum (CT) Leaders are:

- Algebra 1 Patricia Mariscal pmariscal@fcps.edu
- Geometry Jane Lee jlee3@fcps.edu
- AFDA Julie Wagner jmwagner@fcps.edu
- Algebra 2 Shana Sommers ssommers@fcps.edu

- Precalculus Becky Barnes rmbarnes@fcps.edu
- Calculus Shannon Rapoza serapoza@fcps.edu
- Computer Science Yong Park ypark2@fcps.edu
- Statistics Jordan Moellendick jrmoellendic@fcps.edu

Expectations of...

CS Programming	AP CS Principles	AP Computer Science A	CS Data Structures AV:
 CS Programming is an introductory class in programming that uses Python and CMU CS Academy to teach programming concepts such as conditionals, loops, functions, methods, lists, and objects. This course does not require prior programming experience. Students at all levels may enroll in this class. The course is a great choice for students: who are curious about computer programming but are not yet ready to take a rigorous CS class 	 AP Computer Science Principles provides a comprehensive introduction to the foundational principles of computer science. The course teaches algorithms, data analysis, the social impacts of technology, and foundational programming with Python. This course does not require prior programming experience. Students at all levels may enroll in this class. This course will be most beneficial to students who intend to take AP CS A in a subsequent year. This is a great choice for 	 Because AP CS A is a rigorous course in Java programming that includes a significant programming component, prior experience writing code is encouraged. Students with no prior programming experience should consider taking CS Programming or its equivalent prior to taking AP CS A to cultivate programming skills prior to taking AP CS A. The AP CS A course involves introductory concepts such as loops, conditionals, and arrays as well as advanced concepts such as inheritance, polymorphism, and 	 CS Data Structures AV is a rigorous course in algorithms and data structures using the Java programming language. The course is comparable to a computer science course taught in a college Computer Science undergraduate curriculum. Students should have a B+ or better in AP Computer Science A prior to taking CS Data Structures AV. This course will be of greatest benefit to students who intend to major in Computer Science or Computer Engineering in college. CS Data Structures AV course involves challenging

- Freshmen,
 Sophomores, or
 Juniors who are
 interested in taking
 additional CS
 coursework at
 WSHS such as AP
 CS A or Advanced
 CS AB and would
 like to have a
 friendly introduction
 to programming
 first.
- Some prior algebra experience, such as successful completion of Algebra 1, is encouraged but not required.
- The course allows students to explore programming and develop programming skills through artistic and interactive graphics. Students have a chance to develop their own basic video games toward the second half of the school year.
- Students with prior programming experience who are looking for rigorous CS coursework are encouraged to consider taking AP Computer Science A instead of CS Programming.

students:

- who are ready to learn how the technology they use every day works or who want to start developing their programming skills.
- Those interested in computer science may not know where to start. However, students do not need any previous knowledge of computer science to be successful in AP CSP.
- While there are no required computer science prerequisites for AP CS Principles, it is recommended that students have taken Algebra 1.

- recursive algorithms.
- Because the course requires significant analytical and problem-solving skills, students should expect to take ownership of their learning in the course as if this were a college class taught in a university setting.
- The course does not require prior mathematical knowledge beyond Algebra 1 and Geometry. However, it is recommended that students who enroll in AP Computer Science A have a track record of high academic achievement (B+ or better) in prior math courses due to the challenging nature of this course.

programming laboratories beyond the difficulty level of programming assignments in AP CS A.