

Wheaton High School



Information Technology (IT) Software, Computer Science

Recommended Academy Pathway

The Information Technology (IT) Software Pathway program, Computer Science prepares students for further study and careers in the field of Computer Science. Students complete a sequence of four courses, starting with an overview of the Computing and Information Technology field and progressing through a more in-depth study of computer science. Throughout the program, students will learn all aspects of Computer Science including: programming, hardware design, networks, graphics, databases and information retrieval, cyber security, software design, programming languages, logic, programming paradigms, translation between levels of abstraction, artificial intelligence, the limits of computations, applications in information technology and information systems, and social issues (Internet security, privacy, and intellectual property). Students are required to complete the identified academy courses, a college course, and participate in various career-based experiences that include an internship.

This is a sample planner that may be tailored to meet a student's individual needs. All students must take prescribed English, math, science, social studies, and other courses required for a Maryland high school diploma. Those courses are part of each academy pathway. See High School Program Overview for more information.

GRADE 9	GRADE 10	GRADE 11	GRADE 12
English <i>English 9/Honors</i>	English <i>English 10/Honors</i>	English <i>English 11/Honors/AP</i>	English <i>English 12/Honors/AP</i>
Mathematics <i>Algebra 2/Honors</i> or <i>Geometry/Honors</i> or <i>Algebra 1</i>	Mathematics <i>Pre-calculus/Honors</i> or <i>Algebra 2/Honors</i> or <i>Geometry/Honors</i>	Mathematics <i>AP Calculus AB/BC</i> or <i>Pre-calculus/Honors</i> or <i>Algebra 2/Honors</i>	Mathematics <i>AP Statistics/College Level Math</i> or <i>AP Calculus AB/BC</i> or <i>Pre-calculus/Honors</i>
Science <i>Physics/Honors</i> or <i>Biology/Honors</i> or <i>Matter and Energy/Honors</i>	Science <i>Biology/Honors</i> or <i>Chemistry/Honors</i>	Science <i>Chemistry/Honors/AP</i> or <i>Biology/Honors/AP</i> or <i>Physics/Honors/AP</i>	Advanced Elective (select 2) <i>Science</i> <i>Social Studies</i> <i>World Language</i> <i>Fine Arts</i> <i>Engineering</i>
Social Studies <i>U.S. History/Honors/AP</i>	Social Studies <i>National, State, & Local (NSL) Government/Honors/AP</i>	Social Studies <i>Modern World History/Honors/AP</i>	
World Language	World Language	World Language	Physical Education and Free elective
Academy Coursework <i>Foundations of Computer Science</i>	Academy Coursework <i>Computer Science Principles</i>	Academy Coursework <i>Computer Science: AP</i>	Academy Coursework <i>CE Computer Science and Internship</i>
Fine Arts	Health and Physical Education	Technology Coursework <i>Introduction to Engineering Design (IED)</i> or <i>Foundations of Technology (FOT)</i>	Academy Coursework <i>Microcomputer Operating Systems</i> or <i>Ethics and the Information Age</i>

Summer Internship