

Computer Science Curriculum

Computer Science is designed to focus on the understanding and design of computers and computational processes. Students enrolled in this major will think both concretely and abstractly to solve problems that require creativity, careful reasoning, and precision.

Course 1: Computer Programming 1

This course of study is designed to emphasize computer programming using the Python programming language. Topics include the software development cycle, program design and development, and practical experience in programming. Students will pseudocode and flowchart the program using a digital curriculum also used at the collegiate level. Students are also introduced to programming as it relates to virtual and augmented reality.

Course 2: IT Fundamentals

The IT Fundamentals course is designed to prepare the student to take the CompTIA IT Fundamentals certification exam. Instruction includes IT literacy, environmental and safety concepts, operating systems, software, hardware, networking, alternative technologies, security, and computational thinking. Students utilize the skills and qualities of the S.C. Profile of the Graduate to analyze and solve problems within the IT industry.

Course 3: Computer Programming 2

This course of study is a continuation of Programming I and is designed to extend prior knowledge of computer programming using the Python programming language. Students will also explore other programming languages and their applications, how programming is taught in college and career pathways for programmers.

Courses 4 –6: Electives

Students will choose 3 electives to take along side their required courses. Students may choose from the following:

Advanced Cybersecurity	Fundamentals of Web Page Design and Development
Advanced Web Page Design and Development	GIS Technology 1
AP Principles of Computer Science	GIS Technology 2
Computer Forensics	Global Logistics Course 1
Cybersecurity Fundamentals	Informatics Course 1
Fundamentals of Computer Science	