



ACADEMY OF SCIENCE & TECHNOLOGY: COMPUTER SCIENCE PATHWAY

Overview

Over the four (4) years computer science program, students study, develop and use algorithms and data structures; explore and study computer systems and network design; model data and information processes; create, test, and refine algorithmic solutions using Python, JavaScript and Java programming languages in a collaboration and inclusive environment.

Computer Science courses at MOT Charter:

Intro to Computer Programming The first computer science course includes an Introduction Computer Applications, a Wilmington University Dual Enrollment course, Exploring Computer Science© to introduce computer science concepts and computational practices; web design and robotics. Programming languages include Scratch and an introduction to JavaScript using App Lab.

AP Computer Science Principles Students further explore the seven key concepts in computer science with the AP College Board approved curriculum, Code. org. Students also complete Introduction to Computer Programming with Python, a Wilmington University Dual Enrollment course. This course will prepare students for the end-of-course AP Exam.

Web Design with JavaScript Students learn HTML5 & CSS3 and JavaScript. Students will produce and publish basic web sites using HTML/CSS, forms, and tables. JavaScript is used for the programming logic incorporated into website browsers and apps.

AP Computer Science A Students learn object-oriented programming using Java. The emphasis is on problem solving and algorithm development with hands-on activities. This course will prepare students for the end-of-course AP Exam.

Computer Science IV Students learn about the internal operations of personal computers along with troubleshooting, customer service skills and safety practices. This study then expands into learning the latest tips and techniques for computer security best practices to prepare for CompTIA certification.

