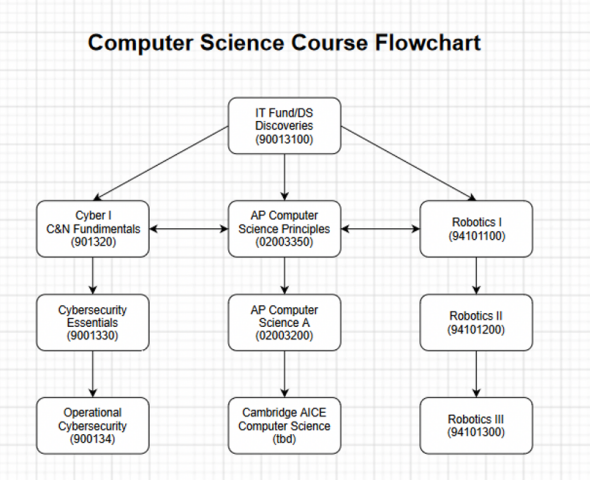
Computer Science

About this Program

As part of our course offerings here at Cooper City High we are proud to offer a dizzying array of Computer Science courses to our students. Below you will find a chart of our course progression as well as brief descriptions of the individual courses.



Course Descriptions

Computer Science Discoveries:
A course that will introduce students to the creative aspects of programming, abstractions, algorithms, large data sets, the Internet, cybersecurity concerns, and computing impacts. Students will learn through exploration not memorization.

Robotics I:
Introduces students to electronic circuit design, the engineering design process, and the use of programming to control real world objects. Students will use Arduino Development kits and ESP32s to give their projects Wi-Fi and Bluetooth capabilities.

Robotics II:
Students expand on what they have learned in Robotics I and learn to program, build and automate robots to complete various tasks and challenges. Students will get to compete against each other in numerous challenges and games. Their robots will navigate mazes, throw balls at each other, pick up and stack cones in timed races, and maybe even do the chicken dance.

Robotics III:
Students will take their Robotics skills even further, designing and building competition robots using Vex V5 hardware.

Cambridge International AS Level Computer Science:
Students meet the needs of higher education courses in computer science as well as twenty-first century digital employers. This course encourages leaders to think creatively, through applying practical programming solutions, demonstrating that they are effective users of technology.

AP Computer Science Principles:
An introductory college-level computing course that introduces students to the breadth of the field of computer science. Students learn to design and evaluate solutions and to apply computer science to solve problems through the development of algorithms and programs. They incorporate abstraction into programs and use data to discover new knowledge.

AP Computer Science A:
AP Computer Science A is a programming class. The course emphasizes object-oriented programming methodology, especially problem solving and algorithm development, plus an overview of data structures and abstraction.

Computer and Network Security Fundamentals:
This course is designed to allow students to achieve a CompTIA A+ Industry Certification. CompTIA A+ is the industry standard for launching IT careers into today's digital world and is trusted by employers to identify the go-to person in endpoint management & technical support roles. A+ is the only industry recognized credential with performance-based items to prove pros can think on their feet to perform critical IT support tasks in the moment.

Cybersecurity Essentials:
This course is designed to allow students to achieve a CompTIA Network+ Industry Certification. CompTIA Network+ helps develop a career in IT infrastructure by covering troubleshooting, configuring, and managing networks. This certification validates the hands-on skills needed to work with both wired and wireless networks, and also included are emerging technologies such as unified communications, mobile, cloud, and virtualization technologies.

#CowboysCode