Wall High School
Computer Technology

Computer Programming (8013)

Prereq: Algebra I   **Grades:** 9-12   **Credit:** 1

Computer Programming will introduce students to computer science concepts using the Java programming language. At the end of this course students will have a knowledge of program writing structures and techniques which they can afterwards apply to areas such as writing robotics programs, game programming, UIL computer science or more advanced college level programming courses. It is recommended that students taking Computer Technology courses start with this course or with Web Technologies.

Advanced Computer Programming (8014)

Prereq: Computer Programming   **Grades:** 10-12   **Credit:** 1

Advanced Computer Programming continues students' studies in computer science. This will include a review and extension of topics covered in Computer Programming, practice with a variety of algorithms to make programming easier, an introduction to recursive and dynamic programming methods, and an in depth look at data structures.

Web Technologies (8027)

Prereq: None   **Grades:** 9-12   **Credit:** 1

In Web Technologies students will learn how to design their own websites. The course will introduce the following:

i) the HTML formatting language: for structuring and developing web pages, or in other words arranging text, images, colors, graphics, sound, and video to appear within a browser.

ii) Media editing: for recording, editing, and modifying photos, videos, and sound files for website use.

iii) An introduction to JavaScript to add variables and computer-user interactivity to a website.

It is recommended that students taking Computer Technology courses start with this course or with Computer Programming.

Game Programming and Design (8005)

Prereq: Computer Programming   **Grades:** 10-12   **Credit:** 1

Students will design and implement games using various software program. The course will include story boarding, scripting, digital artwork and programming. Students who have taken Web Technologies first will be better equipped to create and edit game images, and a knowledge of computer programming is essential to this course.

Robotics and Automation (8020)

Prereq: Algebra I   **Grades:** 10-12   **Credit:** 1

Students will build and program Lego brand NXT and EV3 robots to solve problems and perform various tasks and challenges in a STEM based curriculum. Students will learn both how to calculate distances and how to use sensors such as the light sensor, touch sensor, and ultrasonic sensor to help make robots move autonomously. Students will build various functional tools out of legos, from a basic rover to an electric guitar.