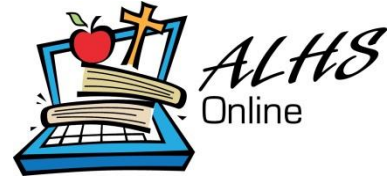


ALHS Online Technology Course Descriptions

(2018-19)



Note the suggested course sequence on page 2.

Course syllabi can be found on the www.alhso.org website.

AP Computer Science A – 1 credit, 2 semesters (full-year "Advanced Placement" course) (full-year course, every year) (Joshua Schoeneck)

Description: A college-level first course in computer science. The emphasis in the course is on procedural and data abstraction, object-oriented programming and design methodology, algorithms, and data structure. Java will be the programming language used in the course.

Prerequisites: Introductory programming course or consent of the instructor.

Grade Level: 11-12

Computer Graphics –.5 credit, 1 semester (spring semester, every year) (Joshua Schoeneck)

Description: *Computer Graphics* will introduce students to raster and vector graphic editing software to create, edit, and manipulate images and drawings. These skills can then be applied to complete projects in other courses during and after high school, in the workplace, and for personal use.

Prerequisites: None, but basic computer knowledge is assumed

Grade Level: 10-12

Game Programming – .5 credit, 1 semester (spring semester, every year) (Mae Tacke)

Description: This is a course for students with some experience in writing computer code. Using the concept of game engines, students will use the game engine Unity to develop an environment for creating simple 3-D game programs that can be viewed in a Web browser. Using step-by-step instruction and hands-on projects, students will learn how to develop, test, run and debug games that feature graphics and sound effects. The project(s) developed over the length of this course will encourage students to consider using these skills to pursue a career in technology or to have an impact on the learning of others.

Prerequisites: Programming course in *Visual Basic*.

Grade Level: 10-12

Introduction to Multimedia – .5 credits, 1 (fall semester, every year) (Adam Mateske)

Description: *Introduction to Multimedia* provides an overview of theory and concepts of audio and visual communication used to present information or promote a message. Students will be able apply an understanding of the elements of design to develop web-based media for presentational and instructional use. Students will also apply ethical and legal responsibilities in creation of multimedia content.

Prerequisites: None, but basic computer knowledge is assumed.

Grade Level: 9-12

Introduction to Programming – .5 credit, 1 semester (fall semester, every year) (Aaron Spike)

Description: *Introduction to Programming* is a hands-on introductory computer-programming course. Students will learn the fundamental programming techniques of the Visual Basic language, while setting a foundation for the learning of other programming languages.

Prerequisites: None, but basic computer knowledge is assumed.

Grade Level: 9-12

Web Page Design – .5 credit, 1 semester (fall semester, every year) (Martin Spriggs)

Description: Students will learn HTML (Hyper Text Markup Language), CSS (Cascading Style Sheets), and JavaScript programming languages so they can create effective and responsive web sites. They will also study the principles of professional design to apply them to those sites.

Prerequisites: None, but basic computer knowledge is assumed.

Grade Level: 10-12

ALHSO Suggested Course Sequence for Technology Courses

	Sem. 1	Sem. 2
9 th	Intro to Multimedia	
10 th	Web Page Design	Computer Graphics
11 th	Intro. to Programming	Game Programming
12 th	AP Computer Science A	