



### Course Description

This course is an introduction to computers and programming languages. The course includes an introduction to select programming languages and development of basic applications using HTML, JavaScript, XML, Visual Basic for Applications (VBA), and the Visual Studio Suite which includes Visual Basic and C++. The course also includes an overview of computers including digital literacy, components of a computer, the Internet and World Wide Web, how computers are categorized, how users interact with computers, and how computers are used in society.

This is a 1 semester course consisting of 8 units. Upon successful completion students will receive 0.5 credit towards high school graduation.

### Purpose of the Course

The purpose of this course is to expose students to various computer languages and to offer an introduction to programming.

### Course Overview

- Introduction to Computers
- Introduction to Programming Languages
- Introduction to HTML
- Introduction to JavaScript
- Introduction to XML
- Introduction to VBA
- Introduction to Virtual Basic
- Introduction to C++

### Course Outcomes/Standards

Upon successful completion of the course students will be able to:

- Identify and describe computer system components and basic computer terms
- Discuss the impact of technology on society and the workplace
- Discuss the importance of algorithms in the problem-solving process
- Create algorithms for solving problems
- Develop a simple HTML based Web page
- Integrate JavaScript with HTML to develop dynamic Web page content
- Create XML documents
- Create macros within a host application
- Design and develop Visual Basic programs using valid and appropriate variables and expressions within the Visual Studio IDE

- Develop C++ programs using valid and appropriate variables and expressions within the Visual Studio IDE

## Required Course Materials

Please access the list of course materials from the OC Online book ordering system and order your materials as soon as possible. Oftentimes, course materials are on back order and you may experience a delay in receiving them, causing students to fall behind in their online coursework. When ordering used or rented materials, be careful that online access codes are also current.

## Methods of Instruction

In order to achieve the learning objectives shared above, students are required to complete and/or participate in the following throughout the course:

- Reading assignments
- Tutorials
- Quizzes
- Unit tests
- Discussion boards
- Assignments
- Projects
- Synchronous Sessions

## Methods of Evaluation

Students will demonstrate mastery through the following formative and summative assessments:

- 40% Assignments
- 10% Participation (Discussion Posts, Synchronous Sessions)
- 10% Quizzes
- 25% Final Exam
- 15% Unit Tests/Projects