

Pittsburg High School

Course Name: Computer Skills

Instructor: Romeo Simionas

Course Description:

This course is designed to teach the basics of computer science. It includes basic concepts of hardware and software, terminology, operation of computers, office computer applications and fundamentals of web design and development.

This course is a pre-requisite for more advanced computer courses at Pittsburg High School.

Credits: one semester.

Course Objectives:

1. Students will learn the basics of computing: how computers work, operating systems, browsers, internet, saving and organizing files in folders, email, basic terminology.
2. Students will learn how to describe, configure and use common used hardware peripherals like printers, scanners, cameras, camcorders and other USB or wireless devices.
3. Students will be able to explain and decide on how to use computer systems in their daily life, how it impacts the society in general.
4. Students will be able to use office software for creating word documents, spreadsheets, presentations, data base and publishing documents.
5. Students will be able to plan and create basic websites using HTML.
6. Students will be able to create simple videos using Movie Maker.

Course Outline:

- A. Intro to computers.
 - a. Computer basics: turn on/off, mouse, keyboard
 - b. Windows: operating system, menus, help, applications etc.
 - c. Opening, closing programs
 - d. Windows tools, accessories.
 - e. Windows shortcut keys.
 - f. Other operating systems described shortly.
 - g. Short history of computers.
- B. Documents: saving and organizing documents.
 - a. Accessing folders and drives via My Computer, Computer, My Documents, Windows Key-E

- b. Creating folders and subfolders for better organizing of documents.
 - c. Saving using the mouse and/or shortcut keys.
 - d. File types, extensions.
- C. Internet, browsers, email.
 - a. Definition of the Web, Internet.
 - b. Web terminology
 - c. Web browsers, search engines. IE, Mozilla, Safari, Opera, Chrome.
 - d. How to use key words to search for information.
 - e. Web based email: create an account to receive email for this class.
 - f. Create email folders and filters.
 - g. Create and send email messages
 - h. Send documents, images as attached files
- D. Security
 - a. What is malware. Security terminology.
 - b. Antivirus software.
 - c. Avoiding malware, spyware.
 - d. Firewalls.
 - e. Blocking pop-ups, spyware.
 - f. Internet security and privacy.
 - g. Email scams, phishing.
- E. Computer Hardware and LANs
 - a. PC components
 - b. Peripherals/USB devices .
 - c. Printers, scanners, photo cameras, camcorders: how to install and use the PC to access them.
 - d. What is a LAN, purpose.
 - e. LAN security, file management.
 - f. WANs.
 - g. Internet vs Intranet.
- F. Office Applications. (Using the book provided)
 - a. Microsoft Word : create, save, edit, format documents.
 - b. Microsoft Excel: create, save, edit, format spreadsheets. Formulas and functions.
 - c. Integrating data between Word and Excel.
 - d. Microsoft Access: understanding and creating databases. Queries, forms, reports.
 - e. Integrating Word, Excel and Access.
 - f. Microsoft Power Point: create, save, edit, format presentations.
 - g. Integrating Word, Excel, Access and Power Point.
 - h. Microsoft Publisher: create, save, edit, format documents.
- G. Intro to Web Design and Development
 - a. What is HTML? Terminology.
 - b. HTML tags, arguments, values.
 - c. HTML syntax.

- d. HTML editors: Notepad ++
- e. Images for web sites: types, image size, image resizing etc.
- f. Web design principles. Steps for designing a website.
- g. Creating a simple web page using HTML.
- h. A little bit of CSS and JavaScript programming.
- i. Linking web pages.
- j. Publishing a website.

Assessment Methods and/or Tools

- a) Text book assignments – intended to see if students assimilate the more difficult concepts.
- b) Individual Projects – intended to check if students are able to practice what they learned, if they feel connected and passionate about the topic they chose for the project, if they do extensive online research and use critical thinking when researching and deciding on how to complete their projects.
- c) Individual research assignments – intended to have the students discover concepts, terminology, history. Make students independent and develop critical thinking.
- d) Unit tests – check if students are learning.
- e) Every day participation points are assigned.
- f) Final exam: Through a comprehensive exam using multiple choice, fill-in-the blank, and written answers students will be assessed on the major concepts, terminology, and applications of computer information systems and the Internet, the means to use them proficiently, the use of major productivity applications (word processing, spreadsheets, PowerPoint and database), and web design basics.

Text Books: “Microsoft Office 2010 – Illustrated Introductory, First Course”

Authors: Beskeen/Cram/Duffy, Friedrichsen/Ring

Published: 2011 Course Technology, Cengage Learning

Supplemental Instructional Materials

HTML Reference: <http://www.w3schools.com/tags/default.asp>

CSS Reference: http://www.w3schools.com/css/css_reference.asp

JavaScript Objects Reference: <http://www.w3schools.com/jsref/default.asp>