

COURSE OUTLINE

CMSY-129

Principles of the Internet

3 Semester Hours

HOWARD COMMUNITY COLLEGE

Description

The Internet provides worldwide communication capability and access to a vast amount of information. But it is also a source of misinformation and attacks on computers. In this course students learn about popular Internet tools and applications as well as the underlying technologies. Students also develop critical thinking skills for evaluating information on the Internet and for identifying and protecting their computers and information from security threats, hoaxes, and scams. The class also introduces e-commerce, including legal issues regarding intellectual property. Students also learn how to create web pages with HTML. Familiarity with a computer, file management skills, and touch typing are strongly recommended for success in this class. Credit will only be granted for one of the following: CMSY-126 or CMSY-129. (3 hours weekly)

Statement on General Education and Liberal Learning

A liberal education prepares students to lead ethical, productive, and creative lives and to understand how the pursuit of lifelong learning and critical thinking fosters good citizenship. General education courses form the core of a liberal education within the higher education curriculum and provide a coherent intellectual experience for all students by introducing the fundamental concepts and methods of inquiry in the areas of mathematics, the physical and natural sciences, the social sciences, the arts and the humanities, and composition. This course is part of the general education core experience at Howard Community College.

Overall Course Objectives

Upon successful completion of this course, the student will be able to:

1. Use a variety of Internet tools, including e-mail, web browsers, plug-ins, and research tools.
2. Identify the major components of the Internet infrastructure – including network hardware and protocols.
3. Describe the technical set-up requirements and choices for connecting to the Internet.
4. Use objective criteria to evaluate the quality of the information found on the Internet
5. Identify major types of viruses, and the vulnerabilities to them when using the Internet.
6. Protect personal information when using the Internet
7. Know how to buy products or services on the World Wide Web, and identify buyer protection issues.
8. Identify elements of successful strategy for doing business on the Internet
9. Distinguish between copyright and trademark law, and how they impact Internet use.
10. Use basic HTML coding for creating web pages.

Major Topics

I. Internet Introduction

Applications and use; Infrastructure, protocols, addressing; URLs and Domain Names

II. Universal Browsers

Multiple ways to use them to retrieve Web site information and for FTP uploading and downloading.

Comparison of browsers, such as Internet Explorer and Firefox.
Configuring browsers for display, cookie handling, and cache management

III. Connecting to the Internet

File storage size, bandwidth, broadband

Advantages and issues of: connecting to the Internet with:

Dial-up analog, ISDN, DSL, Cable, Satellite, Wireless and other ISP services

IV. E-mail

How it works, including protocols, attachments, and security issues

How to use it, including

- sending to multiple recipients, cc, bcc, replying, and forwarding
- signatures and attachments
- organizing stored messages including folders and filters
- security vulnerabilities of attachments

V. Effectively searching for and evaluating information on the Internet

Search engines, robots, spiders, boolean operators, and short cuts

Directories and specialized research resources

Criteria for evaluating credibility and appropriateness of information

VI. Internet Security

Malware - Viruses, Worms, and Trojan Horses

Anti-virus software, software patches, and Firewalls

Privacy vulnerability – spyware, web traps, web spoofing,

Privacy protection – strong passwords, SET, SSL and https, secure e-mail

Scams and Hoaxes

VII. E-commerce and Intellectual Property

Advantages to buyers and sellers of doing business on the Internet

Issues for buyers and sellers of doing business on the Internet

Classifying e-commerce by participants, revenue models, and storefront type

Intellectual property including copyright, fair use, trademark, and domain names.

VIII. Introduction to HTML

Creating, previewing and editing a Web page

- HTML tag syntax; creating text hyperlinks to other Web pages

Formatting text with HTML:

- Ordered and unordered lists; bold, italic, font size, heading tags, text alignment

Adding graphics

- Inserting, and linking graphics; use of image maps; inserting a background image

Using forms to control input by inserting:

- text entry fields; radio buttons, checkboxes, push buttons, and pull-down menus

Working with tables

- Table tags and attributes for data presentation; spanning rows; changing table dimensions;

- Aligning table contents; borderless layout tables for positioning page elements

Course Requirements

Students will work on lab projects using e-mail, search engines and building web pages with HTML coding. There will be at least one short writing assignment requiring additional reading and research and demonstrating critical thinking skills on a topic of Internet use today. Students will also be evaluated by quizzes, a mid-term and a final exam.

Other Course Information

Students must spend significant time working on projects outside of the classroom. This will require use of a computer either at home or in an open Computer Lab at Howard Community College.

This course is an Interdisciplinary and Emerging Issues General Education Core Course.