

COURSE DESCRIPTION

Department and Course Number: CSC 8

Course Coordinator: Monica Range/
Jinsong Ouyang

Course Title: Introduction to Internet Technologies

Total Credits: 3

Current Catalog Description:

Introduction to current technology on the Internet. Students will learn about existing Internet applications, such as email, instant messaging, file transfer, secure communications, and the Web, and will be introduced to related tools and protocols. Users will complete the course with a basic understanding of the Web-publishing process and methods used to locate authoritative information on the Internet. Webpage design, Internet security and emerging/declining technologies on the Internet will also be discussed. Prerequisite: basic computer literacy recommended.

Textbook:

Perry, Schneider: New Perspectives on The Internet
Course Technology, 6th Edition
ISBN 1-4188-6071-9

Course Goals:

After completing this course, students will be able to:

- understand the Web-publishing process;
- use basic XHTML code to develop a simple homepage;
- use a UNIX operating system for elementary procedures related to website management;
- use client software for email, FTP, SSH, VPN and the World Wide Web and be able to find and retrieve authoritative information on the Internet using various resources and search engines;
- use a Web forum;
- use various methods of online chat;
- understand the underlying communication protocols and physical infrastructure of the Internet;
- understand basic security issues and solutions related to the Internet;
- discuss the technical requirements for transmission of text, voice and video data;
- download, decompress, and create secure archives (ZIP files);
- discuss technology trends and consider emerging (and declining) technologies related to the Internet.

Prerequisites by Topic:

Exposure to

- word processing, email, and Web browsing (recommended only)

Major Topics Covered in the Course

1. Orientation to the course structure, SacLink and Gaia accounts (2 hours)
2. Current Information on the Web (2 hours)
3. Real-Time Communication (3 hours)
4. The UNIX environment (5 hours)
5. Current Media on the Web (4 hours)
6. FTP and SFTP (4 hours)
7. Web-publishing process (5 hours)
8. XHTML and webpage design (5 hours)
9. Computer and Browser Security (3 hours)
10. Email and Mailing Lists (3 hours)
11. Internet infrastructure (3 hours)
12. SSH and Usenet (2 hours)
13. Research on the Web (4 hours)

Laboratory Projects

Examples:

- Publish to a Blog, Wiki, or similar communication tool.
- Create and publish a simple website
- Research a chosen topic using the Internet, and develop a report to be presented to the class

Outcomes

Basic understanding of

- The Web-publishing process
- The use of a search engine to locate authoritative information on the World Wide Web
- File management commands in the UNIX operating system
- Software applications and Internet protocols such as FTP, email and SSH
- Tools used to communicate in real time with other Internet users
- Downloading, decompressing and creating ZIP files
- Internet networking and connectivity options
- Internet security
- Media on the Internet (images, video, other files)
- Emerging (and declining) Internet technologies

Exposure to

- Web design using XHTML, Web editors, and other tools
- Usenet
- Local Internet services
- Virtual worlds and communities

Estimated CSAB Category Content

	<u>CORE</u>	<u>ADVANCED</u>
Data Structures	—	—
Algorithms	—	—
Software Design	—	—
Computer Organization and Architecture	—	—
Concept of Programming Languages	—	—

Oral and Written Communications

Every student is required to submit at least one written report and to make one short oral presentation.

Social and Ethical Issues

1. Computer security/computer crime
2. Censorship
3. Copyright on the Internet
4. Privacy on the Web
5. Web Accessibility

Analysis and Design

1. Website design and analysis

Web Committee (with approval from Undergraduate Committee)
11/08/06