Brooklyn College
Department of Computer and Information Sciences

CISC 1030 [3] The Internet
2 hours lecture, 2 hours laboratory; 3 credits

A comprehensive survey of the design, implementation, history, and use of the Internet. Data communications and network concepts, Transmission Control Program/Internet Protocol (TCP/IP), client-server computing, e-mail and Web applications, Hypertext Markup Language (HTML), and client-side scripting tools. Security issues, financial and political applications, ethical concerns. (Not open to students who have completed any computer and information science course numbered 3000 [13 or higher.)

Syllabus

1. Email. Sending, receiving, forwarding, replying. Addresses, mailing-lists, automatic handling of email, etiquette and ethics.
2. Web Clients. Browsing, search engines, "boolean" searches, regular expressions. Etiquette and responsibility.
3. Telephones, analog communication, and the digital revolution.
4. Data communication media. Modems, information coding, buses.
5. LANs: ethernet and token-ring. WANs and packet-switching. Routers and interconnecting networks.
6. Internet protocol. Addresses, datagrams and IP. Virtual circuits and TCP.
7. Layered structure of network systems. OSI model, IP model.
8. Client-server computing.
9. The Domain Name System.
10. Application protocols: SMTP and HTTP.
11. HTML. Syntax, use, style guidelines, special effects.
12. Client-side computing and Javascript.
13. Security and security violations. Forgery, spoofing attacks, worms, sniffers, trojan horses, denial of service.
14. Ethical and legal concerns. Privacy issues. The 1996 Communication and Decency Act. Commerce. Intellectual property. First amendment and workplace rights.

Textbook: