LIS565

Information Networks

subject to change: 2001–10–15

The latest version of this document is available on the web at http://openlib.org/home/krichel/lis565p01a.html.

Course Description
This course only deals with one Information Network, the Internet. We will start by discussion social aspects of the Internet, i.e. its history and governance. We then look at engineering aspects of the Internet. Finally, we study how the technical infrastructure is used in services accessed by the end-user.

Course objectives
On completing this course, students

- have a basic knowledge about the physical components that are necessary to run an Internet connection;
- understand the history of the Internet and its main players today;
- have a basic grasp of the issues involved in connecting a computer on the Internet;
- will be familiar with the most widely used protocols on the Internet;
- understand technical approaches to dealing with privacy issues on the Internet.

This course will not be providing students with an introduction to Internet resources. This is covered in LIS566.

Prerequisites
There are no prerequisites for this course. However, students should have a curiosity of the Internet in general. They should think of themselves not only as users of the computer networks, but also as having a potential auxiliary rôle in the provision of network access to patrons.

Instructor
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Students

name	00	01	02	03	04	05	06	07	08	09	10	11
Tom Cohn	p	p	p	p	p	p	p	p	p	p	p	p
Vincent Notarstefano	p	p	p	p	p	p	p	p	p	p	p	p
Heather Gibbs	p	p	p	p	a	p	p	p	p	p	a	p
Bill Puglisi	p	p	p	p	p	a	p	p	p	a	p	p
Ken Balestieri	p	p	p	p	p	a	p	p	p	a	p	p
Gary Hammond	p	a	p	a	p	p	p	p	p	p	p	p
Louise Franco	p	p	p	a	p	p	p	p	p	p	p	p
José Díaz	p	p	p	a	p	p	p	p	p	p	p	p
Jeremiah Trinidad	a	a	p	p	p	p	p	p	p	p	p	p

Class structure

Classes will be held on Thursday between 18:40 and 21:00 in the computing lab of the Palmer School. The course will mostly be lecture-based. The instructor will try to make it as hands-on as possible, but on this particular topic the options are limited.
Here is a preliminary timetable and topictable:

0	2001–09–06	Introductory Class
	2001–09–13	*no class*
1	2001–09–20	Introduction to Computer Networks and history and standard setting
	2001–09–27	*no class*
2	2001–10–04	LAN and Ethernet
3	2001–10–11	IP numbers and protocol
4	2001–10–18	IP protocol
	2001–10–25	*no class*
5	2001–11–01	DHCP and TCP
6	2001–11–08	DNS and bind
7	2001–11–15	telnet and ftp and smtp
	2001–11–22	*no class*
8	2001–11–29	student presentation
9	2001–12–06	security and telnet and ftp
10	2001–12–13	introduction to xml
11	2001–12–20	conclusions

Readings
An excellent comprehensive, but dated book is Tanenbaum (1996). It is style a bible on the general topic of computer networks. For the student's use, it is too advanced and it covers many a topic that we will not look at, because we concentrate on TCP/IP.
There are now many books that cover TCP/IP. An introductory treatment is Blank (2000). A similar level is Casad (2001). Groth (2001) and Govanus (1999) are more advanced treatments. Comer (2000) provides a comprehensive treatment of Internet protocols.
The instructor will make printed copies of his handouts available for students to scribble on during class.

Assessment
The bulk of the assessment will be a series of mini-exams held at the start of each class, starting from the third class. Each mini exam will raise one or two factual questions on last week's class. These questions should be straightforward to answer from the material covered in the previous class. The avarage of all mini-exams will count for 75% of the final grade.
The remaining 25% will be based on an essay of about 1500 words maximum. Finding topic of the essay is up to the student. The topic is subject to approval by the instructor. Students are also advised to contact the instructor about the essay, he may have some advice on how to focus the topic properly and what primary sources to use.

References

Blank, Andrew J. (2000). *TCP/IP Jumpstart*. SYBEX Inc.

Casad, Joe (2001). *Teach yourself TCP/IP in 24 hours*. SAMS Publishing.

Comer, Douglas E. (2000). *Internetworking with TCP/IP: Principles, Protocols and Architetures*. Prentice Hall.

Govanus, Gary (1999). *TCP/IP 24seven*. SYBEX Inc.

Groth, David (2001). *Network+ Study Guide*. SYBEX Inc.

Tanenbaum, Andrew S. (1996). *Computer Networks*. Prentice Hall.