

Network Programming CSCI-4220, 6968

Spring 2003

Course: CSCI-4220 ,CSCI-6968
Tue, Fri 12:00-1:50PM DCC324
Home Page: <http://www.cs.rpi.edu/~hollind/netprog>
Email: netprog@cs.rpi.edu

Instructor: Dave Hollinger
Office: Amos Eaton 110
Phone: 276-6722
Email: hollind@cs.rpi.edu
Home Page: <http://www.cs.rpi.edu/~hollind/>
Office Hours: Mon 10-12, Wed 1-3

TAs:	Jiang Li (Leo)	David Siebecker
	Email: lij6@cs.rpi.edu	Email: siebed@cs.rpi.edu
	Office: Lally 9A 276-8985	Office: Lally 3A 286-8556
	Office Hours: Mon, Tue 10-12AM	Office Hours: Tue 10-12, Wed 1-3

Lizhuang Zhao
Email: zhaol2@cs.rpi.edu
Office: Lally 1B 276-8465
Office Hours: Mon, Thur 10-12AM

Texts: Unix Network Programming: Networking APIs: Sockets and XTI, 2nd Ed.
W. Richard Stevens

The WWW.

Grading: Tests (2): 30%
Homework/Programming Projects : 70%
NOTE: A failing average on the tests (less than 50%) will result in failure for the entire course!

Course Home Page: The course home page will include all programming assignments and class handouts. Some class notes and material related to specific topics will also be made available through the home page. Hardcopy of any class handouts will be provided only on request.

Homework and Programming Projects: All homework and programming projects must be done individually. Once programming assignments are made, the course home page will contain information on what is expected for project submission and directions for electronic submission.

Cheating will not be tolerated. Any duplicate or near duplicate project submissions will result in a 2 letter grade reduction for the course grade for all students involved and may result in a failure for the entire course. You may *discuss* projects with other students, but sharing of code in any form is not acceptable (this means that looking at another student's code or showing your code to another student is **not** permitted). If you need help with a project - send mail to netprog@cs.rpi.edu ! Please contact the instructor if there is any part of this policy you do not understand.

NetProg-2003 Tentative Topic List & Readings

Week of	Topic	Reading
Jan 13	Intro. To Networking, O.S.I. Reference Model	Chapter 1
20	Datalink and Transport Layers, Ethernet, TCP/IP	Chapter 2
27	Sockets Programming TCP Programming TELNET, HTTP, Authd	Chapter 3 Chapters 4,5 RFCs
Feb 3	UDP sockets I/O Multiplexing TFTP	Chapter 8 Chapter 6 RFCs
10	DNS and address conversion Buffer Overflow The WWW & Web Programming (CGI)	Chapter 9 Handouts Handouts, Links
17 *	Cookies, JavaScript, XML	Handouts, Links
24	Router and Bridge Software Threads programming IPV6	Chapter 23 Chapter 10
Mar 3	Test #1 (on March 4th) Client/Server Programming Advanced Sockets Programming	Chapter 27 Chapters 7,11,21,22
10	SPRING BREAK	SLEEP
17	Daemons, inetd SMTP, POP, IMAP, FTP	Chapter 12 RFCs
24	IRC, Chat, Instant Messaging Protocol Design	RFCs
31	Security LDAP	RFCs, Links
Apr 7	XDR & RPC Programming Java Network Programming, RMI	Handouts, Links
14	XML, XML-RPC, SOAP	Handouts, Links
21	CORBA	Handouts, Links
28 *	Test #2 (on April 29th)	

*indicates short week (1 meeting)

Important Dates

Test	Date	Project	Due Date	Topic (may change)
TEST 1	3 / 4	P1	1/25	Layered Software System
TEST 2	4 / 29	P2	2/15	TCP & HTTP
		P3	3/1	UDP (TFTP or DNS)
		P4	3/22	CGI Programming
		P5	4/5	(Something using threads)
		P6	4/19	IPV6, Protocol Design
		P7	4/25	XML-RPC/ Soap