

# Network Programming CSCI-4220, 6968

## Spring 2004

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- Course: CSCI-4220 ,CSCI-6968  
Tue, Fri 10:00-11:50AM, DCC 337  
Home Page: <http://www.cs.rpi.edu/~hollingd/netprog>  
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Zujun Shentu [shentu@cs.rpi.edu](mailto:shentu@cs.rpi.edu)  
Hu Yanbing [huy@cs.rpi.edu](mailto:huy@cs.rpi.edu)
- Texts: Unix Network Programming, Volume 1: The Sockets Networking API, 3rd Ed.  
By [W. Richard Stevens](#), [Bill Fenner](#), [Andrew M. Rudoff](#)  
  
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](mailto:netprog@cs.rpi.edu) ! Please contact the instructor if there is any part of this policy you do not understand.

## NetProg-2004 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 11 Handouts Handouts, Links
*17	Cookies, JavaScript, XML	Handouts, Links
24	Router and Bridge Software Threads programming IPV6	Chapter 26 Chapter 12
Mar 2	<b>Test #1</b> Client/Server Programming Advanced Sockets Programming	Chapter 30 Chapters 7,14,16,21,24,25
9	SPRING BREAK	SLEEP
16	Daemons, inetd SMTP, POP, IMAP, FTP	Chapter 13 RFCs
23	More Internet Application Protocols Protocol Design SCTP	To be determined Chapters 9,10
30	Security LDAP	RFCs
Apr 6	XDR RPC Programming	Handouts
13	Java Network Programming	Handouts, Links
20	CORBA	Handouts, Links
*27	<b>Test #2</b>	

\*indicates short week (1 meeting)

### Important Dates

Test	Date	Project	Due Date	Topic (may change)
TEST 1	03/02/04	P1	01/27/04	Layered Software System
TEST 2	04/27/04	P2	02/10/04	HTTP Server
		P3	02/24/04	UDP (TFTP or DNS)
		P4	03/16/04	CGI Program
		P5	03/30/04	(Something using threads)
		P6	04/20/04	IPV6
		P7	04/30/04	RPC/SCTP/Java ?