

## CSCI 473: *Network Programming*

### *General information*

The instructor for *CSCI 473* is Dean Brock. The course will meet on Tuesday and Thursday from 3:05 PM to 4:20 PM.

The textbook for the course will be *Unix Network Programming* by Richard Stevens, published by Prentice-Hall (ISBN 0-13-949876). We will cover the following topics, listed below with related sections of the textbook and expected number of class periods:

Introduction	Chapter 1	1
Unix process model	Chapter 2	3
Intra-machine IPC	Sections 3.1-3.6	2
Networking fundamentals	Chapter 4	2
Internet Protocol	Sections 5.1-5.2	1
Sockets	Sections 6.1-6.9, 6.11-6.18	3
Network name resolution	Sections 8.1-8.2, 8.4	1
Remote procedure calls	Sections 18.1-18.3	2
User validation	Sections 9.1-9.2	1
Remote command execution	Chapter 14	1
Remote login	Chapter 15	2
Kerberos	Section 9.3	1
Other popular protocols	Sections 5.4-5.6	2
System V IPC	Sections 3.7-3.13	2

Grades will be based on a combination of graded homework and three in-class exams. In the weighing of graded material for the assignment of final grades, homework will count one-half and the in-class exams, one-sixth each. The most likely times for the first and second exams will be the second week of February and the fourth week of March. The final exam will be in the last week of class (right before grades for graduating seniors are due).

There will be two programming ``warm-up" assignments that use the networking facilities available in the Department's Unix workstation lab. Completing these two assignments should certify you as a semi-guru of network programming in the Unix environment. The programs involved for these assignments should be no more than 100 lines of code in the C programming language. Then the class will design some significant networking application and design and *hopefully* implement it during the semester.

In addition, there will be one or two homework assignments consisting of a review, both written and oral, of an article describing the network system design.

My office hours are Tuesday, Wednesday, and Thursday from 1:30 PM to 3:00 PM. However, I do frequently read electronic mail and sending a message to my computer account, `brock@cs.unca.edu`, is generally the best way to get a prompt response.