

CpSc 360 (Section 2), Fall 2008, Syllabus

General Information:

Class Time: 4:00 PM – 5:10 PM Monday and Wednesday.
Location: 408 Daniel Hall
Instructor: Dr. James Z. Wang
Office: 305 McAdams Hall
Phone: 864-656-7678
Email: jzwang@cs.clemson.edu
Office Hours: 3:00 PM ~4:00 PM Monday and Wednesday
Web site: <http://www.cs.clemson.edu/~jzwang/0808360/cpsc360.htm>

Prerequisites: C/C++ programming.

Objective:

Network is the backbone of modern computer systems. Due to flourish of Internet and the WWW, network programming and Web programming have become more and more important. In this course, students will be introduced to distributed systems, network protocols, Web technologies. Network programming is the focus of this course. TCP/IP will be discussed in details. Web programming, such as CGI and PHP, will also be discussed. Some Internet protocols such as HTTP, IRC, etc. will be studied as well. The students will gain hands-on experience in these areas through programming assignments.

Textbook:

UNIX Network Programming: The Sockets Networking API, Volume 1, 3rd Edition. W. Richard Stevens, Bill Fenner, Andrew M Rudoff.

Evaluation:

- **Homework (50%):** Since this is a programming course, all assignments will be in form of programming project. Projects will be posted on the website and must be done **individually**.
- **Midterm Exam (20%):** October 1.
- **Final Exam (20%):** Test may be waived if the average score in homework assignments, quizzes and midterm exam exceeds 90.
- **Quizzes (10%):** There will be up to 10 quizzes at unspecific time during the semester.
- **Penalty Points (-10%):** Each tardy will be penalized with -1 point in final grade.

Policies:

- It is very important to attend the class. Failure to attend the course most likely leads to missing some information (especially programming experience) that won't show in lecture notes or textbook. Tardy will be punished by penalty points. However, you can assume the class is cancelled if the instructor does not show up in the classroom by 4:15PM.
- Any duplicate or near duplicate homework assignment submissions will result in a **zero (0)** grade in that assignment for all students involved and may result in a failure for the entire course. You may discuss the assignments 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 an assignment, send emails to the instructor or see him in person!
- Please contact the instructor if there is any part of these policies you do not understand.

Grading:

A (90 - 100), B (80 - 89), C (70 - 79), D (60 - 69), F (0 - 59)

Q&A:

Email questions to jzwang@cs.clemson.edu with subject "CP SC 360 Q&A";

Tentative Schedule (May change during the semester):

	Topic	Reading
August 20	Course Introduction	
August 25	Network, OSI reference model	Chapter 1
August 27	Network fundamentals	Chapter 2
September 1	TCP/IP protocols	
September 3	Sockets Programming	Chapter 3
September 8, 10	TCP Programming	Chapter 4, 5
September 15, 17	Concurrent Programming	Chapter 4, 5
September 22	HTTP protocol and Proxy Server	RFCs, Links
September 24	Unix Programming Issues	
October 29	DNS and address conversion	Chapter 11
October 1	Midterm Exam	
October 6	Daemons and Inetd	Chapter 13
October 8	UDP Sockets Programming	Chapter 8, 14
October 13	TFTP Protocol	RFCs
October 15	Buffer Overflow	Links
October 20, 22	The WWW and Web programming (CGI, PHP)	Handouts, Links
October 27, 29	I/O multiplexing	Chapter 6
November 3	Fall break	
November 5, 10	Broadcast and multicast programming	Chapter 20, 21
November 12, 17	Threads Programming	Chapter 26
November 19	Thanksgiving break	
November 24	Remote Procedure Call	RFCs
November 26	RPC Programming with rpcgen	Links
December 1	Email Protocols – SMTP, POP	RFCs
December 3	Course Review	
December 9	Final Exam	Tuesday 7:00 pm - 9:30 pm

Academic Integrity:

http://www.cs.clemson.edu/html/academics/academic_integrity_2002.html

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