CS 82010 UNIX Application Development
Communication, Content, and Structure

Communications

Class Meetings: Thursday 11:45 A.M. - 1:45 P.M., Room 3305
Office: to be decided
Office Hours: to be decided
Email: stewart.weiss@hunter.cuny.edu
Telephone: (212) 772-5469 or (212) 772-5213 (Hunter CSci Department office)

Resources

Required Textbooks: None

Suggested Textbook: Bruce Molay. *Understanding Unix/Linux Programming*. Prentice Hall, 2003. ISBN 0-13-008396-8 (ISBN-13 978-0130083968).

On-line Resources: This page and all documents related to this course are available for download on my website in the home page for this class. In addition, students will be given accounts on a server (as yet to be determined) that will act as a repository for example programs and as a means by which to work on and submit projects for the class.

Learning Objectives

A student who successfully completes this course will

- understand how to write programs that interact with UNIX and UNIX-like operating systems,
- be able to build applications that utilize all of the resources available on the given platform,
- be able to work efficiently within the UNIX programming environment,
- understand how the UNIX API is designed and structured, and
- understand the general structure common to almost all UNIX operating systems.

Course Content

The course is designed to teach systems programming. It will cover the kernel API and structure in general I/O, device and terminal control, the file system interface, process and thread management, signals and event driven programming, the curses library, and inter-process communication methods. If time permits, it will also cover a bit about graphical user interface libraries such as GTK+.

Expectations, Readings, Assignments, and Grading

There will be four programming projects as well as readings. The student is expected to do all of the specified reading, complete all projects, and work independently. The first three projects will be assigned by the instructor. The final project is a research project that will be chosen by the student with guidance and consent from the instructor. The final grade in the class will be based entirely on the grades on the projects. The final project will require an oral presentation to the class. For the purpose of determining the final average, the first three assignments will be weighted 20% each and the final project will be weighted 40%. The due dates for the assignments, which are subject to a bit of minor change, are

Assignment	Due Date
1	Feb 25, 2010
2	Mar 18, 2010
3	Apr 15, 2010
4	May 13, 2010

Scheduling

Please note that there is no class on Thursday, February 18, which follows a Monday schedule. The last day of class is May 20, which is during exam week. The class will be used for student presentations.