

CS 2042 - UNIX Tools

Fall 2008 : 9/29 - 10/24

Time and Location: 12:20 – 1:10 MWF, Phillips 203

Instructor: Michael McCourt

Office: Rhodes 657

Phone: 216.409.4644

Email: mjm458@cornell.edu

WWW: <http://math.iit.edu/~mccomic/2042>

- We are using this old website until Cornell gives me new webspace.

Office Hours: 2:00 – 3:00 MW, or by appointment

Course Description: This is an introduction to Unix, emphasizing tools for file management, communication, process control, managing your Unix environment, and rudimentary shell scripts.

Textbooks: There is no required textbook for this class.

Other Required Material: Access to a Linux operating system.

Prerequisites: Basic programming knowledge.

Objectives:

1. Students will understand the basic aspects of UNIX operating systems.
2. Students will appreciate file structure in UNIX.
3. Students will be able to execute commands in the shell or scripts. Use of regular expressions will be incorporated.
4. Students will learn common commands for simple everyday actions.

Assignments: 1 quiz/test which will confirm knowledge of material from the lectures.

Grading: Students who complete the assignments on time will pass. Otherwise take your chances.

COURSE OUTLINE

This class consists of 11 50 minute lectures. There will be 3 lectures a week between Sept. 29 and Oct. 24, except for Oct. 13 which will be canceled for Fall Break.

1. Intro to UNIX & Course Overview
 - Brief description and history
 - Current incarnations - advantages/disadvantages
2. Getting Around
 - Navigation
 - Creation/deletion
 - Users & permissions
3. File Structure
 - UNIX vs. Windows, binary files
 - Executing programs, links, commands
4. The *Operating* System
 - Processes, jobs, redirection
5. Knowing Your Shell
 - bash/tsh/csh/zsh
 - Variables, wildcards
6. Regular Expressions
 - grep, regexp wildcards, tr
 - sed, awk
7. bash Scripting
 - Conditionals, arithmetic, subshells
8. Everyday Tasks
 - Email, web browsing, media playback
 - Text editing, code compilation