



Course Goals: (1) Become familiar with Linux/Unix system functionality which is accessible through system calls and library routines: I/O, processes, signals, and various forms of Interprocess Communication (IPC) -- pipes, shared memory, semaphores, and message queues.

(2) Learn how to develop, design and implement C/C++ application programs which access Linux/Unix system functions through system calls and library routines.

Grades: Grades are based on the weekly problem sets (70%) and a final exam (30%). Problem sets are due on the dates listed in the calendar below. Problem sets will not be accepted late unless permission by the instructor was given prior to the due date. Each problem builds on the previous adding material covered in the previous lectures and outside readings. The value of each problem set will be of equal weight.

Plagiarism: Cheating and plagiarism will not be tolerated. They will result in no credit for the homework. This should not be understood as a discouragement for discussing the material or your particular approach to a problem with other students in the class. On the contrary - I urge you to share your thoughts, questions and solutions.

Accounts: Accounts on metcs.bu.edu system are given to students. To get an account go <http://www.bu.edu/computing/accounts/acsaccounts/index.html>. In addition, you will be given a Linux account on a MET CS machine. All work must be submitted and will be graded on that machine. Details to come.

Attendance: Class is held Tuesday evenings from 6:00 to 9:00 p.m. in MCS B33. Attendance is required. Lecture notes and other material may be provided as an aid to the students and is used to supplement the assigned reading and lectures.

## Calendar

Lecture	Date	Topic
1	1/20/2009	Intro, history, basics, Bash
2	1/27/2009	Development environment, tools, debugging
3	2/3/2009	File Input and Output, System and Library Calls, Error Handling
4	2/10/2009	About files (types, structure, security, access)
	2/17/2009	Monday schedule NO CLASS
5	2/24/2009	Filesystems (architecture, inodes, renaming, links)
6	3/3/2009	System Information & Data Management, Process and Process Environment
	3/10/2009	Spring recess NO CLASS
7	3/17/2009	Linux processes
8	3/24/2009	Signals
9	3/31/2009	Advanced I/O and local interprocess communications
10	4/7/2009	Sockets and remote interprocess communications
11	4/14/2009	POSIX and Parallel Programming, part 1
12	4/21/2009	POSIX and Parallel Programming, part 2
13	4/28/2009	MySQL and review
14	5/5/2009	Final Exam
15	5/1/2008	Advanced topics
	5/8/2008	Final exam

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