

Introduction & Course Overview

Dr. Robert Lowe

Division of Mathematics and Computer Science
Maryville College

Outline

1 Syllabus

2 Linux Environment

Course Description

An introduction to computer science and structured programming with emphasis on program design and implementation, debugging, documentation, and programming projects. Laboratory work supplements and expands lecture topics and offers supervised practice using programming.

Required Materials

- *Big C++*. 3/e. Cay Horstmann. <https://tinyurl.com/bigcpp>
- An internet connected computer of some sort.

Grading

Category	Weight
Exams	30%
Quizzes	15%
Attendance & Hands-On Lab Activities	20%
Programming Assignments	35%

Academic Honesty

- Cheating and Plagiarism are Immoral (you are a bad person if you do this).
- Plagiarism is integrating other people's work into your own without attribution.
- Cheating is the wholesale copying of another work.
- Neither Plagiarism or Cheating will be tolerated in any form!
- Acceptable Sources of Code:
 - Your own original code.
 - Code from class examples and lab assignments.
 - Code from your textbook.
- An honest failure is respectable. Cheating is contemptible.

Course Policy Overview

- Do not cheat.
- Deadlines are set, no extensions will be given.
- No late work will be accepted.
- Attendance is mandatory.
- Excused absences are possible, but do not modify any due dates (except in rare circumstances).
- Students with disabilities should contact the academic support center 981-8124 to coordinate accommodations.


Account Setup & Logging In

- 1 Signup for a free github account: <http://github.com>
- 2 Visit <https://tinyurl.com/cs111-github> to share your github username and real name with me.
- 3 Signup for an MCCS account by visiting <https://cs.maryvillecollege.edu/signup>
- 4 Click the link in your email to set your password.

Connecting to MCCS

Username: first.last **Server:** cs.maryvillecollege.edu **Port:** 22


Windows

- 1 Launch Putty 
- 2 Enter the servername.
- 3 Click open
- 4 When prompted, enter your username and then password.

ChromeOS

- 1 Install and launch “Secure Shell”
- 2 Fill in connection details and click “open”

MacOS X

- 1 Launch terminal 
- 2 Enter the command: `ssh first.last@cs.maryvillecollege.edu`
- 3 Press enter
- 4 Enter password when prompted.

The Linux Command Prompt

- Commands are entered in the following pattern: `command arg1 arg2...`
- Pressing “enter” executes the commands.
- Let’s try it out! Run the following commands:
 - 1 `ls`
 - 2 `ls -a`
 - 3 `ls -l -a`
 - 4 `man ls`
 - 5 `man man`

Working With Directories

`ls` List files in the current directory

`mkdir name` Create a Directory

`pwd` Show the present working directory

`cd directory` Change Directory

Let's try it out!

1 `mkdir humor`

2 `ls`

3 `cd humor`

4 `pwd`

Working With Files

`cp` *src dest* Copy a file

`mv` *src dest* Move a File

`rm` *filename* Remove a file (be careful!)

`less` *filename* View a file

Let's try it out!

❶ `cp /home/robert.lowe/humor/bees bess`

❷ `ls`

❸ `mv bess bees`

❹ `ls`

❺ `rm bees`

❻ `ls`

❼ `cp robert.lowe/humor/* .`

❽ `less threes`

Text Editing

- Programming is about entering text into files.
- A variety of text editors exist.
- People tend to choose friends based on common text editor preferences.
- The most common editors on our system are:
 - `nano` - A simple editor, original designed for muggles to use with email.
 - `vi` - Visual Editor a modal text editor.
 - `emacs` - A very elaborate and powerful editor.

Playing Games

Let's take a look at games installed on the system!

- 1 `ls /usr/games`
- 2 `ls /usr/local/games`
- 3 Try typing some of the names that came up. Some of my favorites are:
 - `tetris-bsd`
 - `moon-buggy`
 - `lander`
 - `robots`
 - `fortune`
 - `adventure`
 - `zork`
 - `nethack`

Homework For Next Time

Play around with the three major editors and pick which one you wish to use. (You can change your mind later.)

- **vi** - Run `vimtutor` from the command prompt to get the vim tutorial.
- **emacs** - Run `emacs` from the command prompt to run emacs.
press “Control+h” followed by “t” to get to the tutorial
- **nano** - Just mess around. This is not an editor for serious programmers, but if you like it then you do you!