

CS 201
Computer Systems
Programming II

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Welcome

This is a course on computer systems, from a software point of view.

It provides skills and knowledge of C programming and systems programming concepts such as:

- **Exceptions and interrupts**
- **Processes**
- **File I/O**
- **Measuring and improving performance**
- **The memory hierarchy, caches, and virtual memory**
- **Dynamic memory allocation**

Agenda for Today

Administrative stuff

- Textbooks, my policies, class mailing list, etc.
- Who's here

Introduction to Lab Assignment 1

C programming and Linux

The only lesson of value is a learned one.

**What's important for us here is not the information that
I teach, but what you learn.**

Textbooks

Randal E. Bryant and David R. O'Hallaron,

- **“Computer Systems: A Programmer’s Perspective”, Prentice Hall 2003.**
- **csapp.cs.cmu.edu**

Brian Kernighan and Dennis Ritchie,

- **“The C Programming Language, Second Edition”, Prentice Hall, 1988**

Housekeeping stuff

Syllabus Handout

- The online syllabus will be updated as required through the term
- www.cs.pdx.edu/~robboy/CLASSES/CS201/
 - Go to www.cs.pdx.edu/~robboy and follow links

Class Mailing List

- It is important to subscribe (see A0)
 - cs201@cs.pdx.edu
- Announcements, hints, and lab project requirements will be sent to the list
- You can ask questions on the mailing list
- You are encouraged to answer each other's questions

More Housekeeping

Due Dates

- Late homework will not be accepted except by prior arrangement.
- Illness, family crisis, severe conflict with work.
- If you know of a potential conflict, talk to me as soon as you can!

More Housekeeping

There are approximately eight homework assignments

There are two tests

The final exam will be comprehensive, covering the entire term

There is no extra credit

Lab Assignment 1

The specification is on my web site

- www.cs.pdx.edu/~robboy, click on CS201, scroll down to the weekly schedule, click on “A1 due”

It's due in one week.

Cheating

Cheating will not be tolerated.

The minimum penalty for cheating is a zero for that assignment.

What is Not Cheating?

Solving a problem together as part of a lab assignment is OK.

Discussing the high level design for a lab assignment is OK.

Helping each other orally (not in writing) is OK.

Using anything out of the textbook or my slides is OK.

Copying code “snippets”, templates for system calls, or declarations from a reference book or header files are OK.

What is Cheating?

Copying code verbatim without attribution, except:

- Code from the textbook or my slides
- Snippets

Helping each other in writing.

Assigned reading

You are responsible for the assigned reading in the text book

- Lectures are a supplement, not a substitute.

If you want a good grade, read the assignments.

Advice: If you want a good grade, do the practice problems

- More important even than the reading

Turning in homework

- **Email only, no paper**
- **Tar file, named with your name**
 - with all files in a sub-directory, your name
 - A sub-directory called “assignment1” doesn’t help me at all.
 - Plain text files only. No binary files, no junk, no word documents
- **How to make a tar file:**
`mkdir robboy`
`cp *.c *.h makefile robboy`
`tar cvf robboy.tar robboy`
- **Every assignment has a section called “Deliverables” with a link to:**

<http://www.cs.pdx.edu/~robboy/CLASSES/CS201/homeworks/Deliverables.html>

- **Read it.**

For Further Information

W. Richard Stevens, Advanced Programming in the Unix Environment, Addison Wesley, 1993.

Brian W. Kernighan and Rob Pike, The Unix Programming Environment, Prentice-Hall, 1984

What to do for next time

Get the textbooks if you don't already have them.

Join the class mailing list (Assignment A0).

Read the assigned sections: B&O, Chapter 7.