15-213: Introduction to Computer Systems

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Carnegie Mellon University
Fall 2006

1 Organization

Instructors:

Randal E. Bryant	David R. O'Hallaron
Randy.Bryant@cs.cmu.edu	droh@cs.cmu.edu
NSH 4305, x8-8821	WeH 8125, x8-8199
Tue, 11-12noon	Wed, 2:30-4pm

TAs:

Ashwin Bharambe	Michael Brotzman	Tudor Dumitras
Section E	Section D	Section B
ashu@cs	mbrotzma@andrew	tdumitra@ece
WeH 8218, x8-7555	Wean Cluster	CIC 2225E
Thu, 4:45-5:45pm	Thu, 7-8pm	Wed, 12-1pm

Donnie H. Kim	Amit Manjhi
Section A	Section C
dhjkim@cs	manjhi@cs
CIC 2224A	WeH 8303, x8-2993
Fri, 4-5pm	Tue, 5-6pm

Please see the class Web page for up-to-date office hours.

Course Assistants:
Cindy Chemsak, NSH 4303, x8-7884, cindyc@cs.cmu.edu
Barb Grandillo, WeH 8018, x8-7550, bag@cs.cmu.edu

Lecture:
Wed and Fri, 1:00–2:20pm, Wean Hall 7500

Recitations:

A	Mon	10:30–11:20	WeH 5310	Donnie Kim
B	Mon	11:30–12:20	WeH 5310	Tudor Dumitra
C	Mon	12:30–1:20	WeH 5310	Amit Manjhi
D	Mon	1:30–2:20	WeH 5310	Michael Brotzman
E	Mon	2:30–3:20	WeH 5310	Ashwin Bharambe

Class Web Page:

4. *There is more to performance than asymptotic complexity.* Constant factors also matter. There are systematic ways to evaluate and improve program performance

5. *Computers do more than execute instructions.* They also need to get data in and out and they interact with other systems over networks.

By the end of the course you will understand these "realities" in some detail. As a result, you will be prepared to take any of the upper level systems classes at Carnegie Mellon (both CS and ECE). Even more important, you will have learned skills and knowledge that will help you throughout your career.

3 Textbook

The primary textbook for the course is

> Randal E. Bryant and David R. O'Hallaron, *Computer Systems: A Programmer's Perspective*, Prentice Hall, 2003.

In addition, we require you to have the following reference book on the C programming language:

> Brian W. Kernighan and Dennis M. Ritchie, *The C Programming Language, Second Edition*, Prentice Hall, 1988.

This the classic *K & R* book, the standard against which all reference manuals are compared. It is an essential part of every computer scientist's library.

4 Course Organization

Your participation in the course will involve five forms of activity:

1. Attending the lectures.
2. Preparing for and participating in the recitations.
3. Laboratory assignments.
4. Reading the text.
5. Exams

Attendance will not be taken at the lectures or recitation sections. You will be considered responsible for all material presented at the lectures and recitations.

Lectures will cover higher-level concepts. Recitations will be more applied, covering important "how-to's", especially in using tools that will help you do the labs. In addition, the recitations will help clarify lecture topics and describe exam coverage.