

# Computer Organization CSCI-2500


Fall 2000

---

Course: Computer Organization CSCI-2500  
Lectures: Mon, Thu 10:00-11:50 Rckttts 203  
Home Page: <http://www.cs.rpi.edu/~hollindg/comporg/>  
Email: [comporg@cs.rpi.edu](mailto:comporg@cs.rpi.edu)

Instructor: Dave Hollinger  
Email: [hollindg@cs.rpi.edu](mailto:hollindg@cs.rpi.edu)  
Office: Amos Eaton 110  
Phone: 276-6722  
Office Hours: Tue, Fri 10:00-12:00

Teaching Assistants: Jiang Li [lij6@cs.rpi.edu](mailto:lij6@cs.rpi.edu)  
Jianliang Yi [yij@cs.rpi.edu](mailto:yij@cs.rpi.edu)  
Bin Mo [mob@cs.rpi.edu](mailto:mob@cs.rpi.edu)

Course Texts:  **REQUIRED: Computer Organization & Design**,  
by Patterson and Hennessy. 2<sup>nd</sup> ed.  
Morgan Kaufmann  
ISBN: 1558604286



**OPTIONAL: The C Programming Language**,  
by Kernighan and Ritchie  
Prentice Hall  
ISBN: 0131103628

Grading: Tests (2) : 30%  
Homework: 40%  
Final Exam: 30%

**Course Home Page:** The course home page <http://www.cs.rpi.edu/~hollindg/comporg/> will include all homework assignments, class handouts and announcements. Some class notes and material related to specific topics not covered in the book will also be made available through the home page. Hardcopy of any class handouts will be provided only on request.

**Homework and Programming Projects:** All homework and programming projects must be done individually. Once programming assignments are made, the course home page will contain information on what is expected for project submission and directions for electronic submission.

**Cheating will not be tolerated.** Any duplicate or near duplicate homework/project submissions will result in a grade of zero for the project for all students involved and may result in a failure for the entire course. You may *discuss* projects with other students, but sharing of answers or code in any form is not acceptable (this means that looking at another student's code or showing your code to another student is **not** permitted). If you need help with a project – send mail to *comporg@cs.rpi.edu*! Please contact the instructor if there is any part of this policy you do not understand.

### Tentative Topic List and Readings

Week of	Topic	Readings
Aug 28	Unix & C Programming	K&R, notes, links
Sep 4 *	Unix & C Programming	K&R, notes, links
11	History & Performance	Chapters 1,2
18	Boolean Algebra and Digital Logic	Appendix B
25	Logic Design	Appendix B
Oct 2	Instruction Sets	Chapter 3
9	Assembly Language Programming	Appendix A
	<b>Test#1 (Oct 10<sup>th</sup>)</b>	
16	Computer Arithmetic	Chapter 4
23	DataPath & Control	Chapter 5
30	DataPath & Control	Chapter 5,
	Control System Hardware Design	Appendix C
Nov 6	Pipelining	Chapter 6
13	Pipelining	Chapter 6
	Memory Hierarchy	Chapter 7
20 *	<b>Test#2 (Nov 20<sup>th</sup>)*</b>	Chapter 7
27	Memory Hierarchy	Chapter 7
Dec 4	Buses/Multiprocessing	Chapters 8,9

\* indicates short week (1 meeting)