

# Computer Organization CSCI-2500

## Fall 2002

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Course: CSCI-2500 CRN: 60156  
Lectures: Monday, Thursday 2-3:50 DCC 318  
Home Page: <http://www.cs.rpi.edu/~hollingd/comporg/>  
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	Office Hours:	Office Hours: Wed 2-4:00 PM

Texts: *Required:* Computer Systems: A Programmer's Perspective  
Randal Bryant and David O'Hallaron

*Suggested:* The C Programming Language. 2<sup>nd</sup> edition  
Kernighan and Ritchie

Grading: Midterm Tests (2): 30%  
Homework(6?): 40%  
Final Exam: 30%

**Course Home Page:** The course home page will include homework assignments, lecture notes, handouts and announcements. Hardcopy of any class handouts will be provided only on request.

**Homework and Programming Projects:** All homework must be done individually. Once assignments are made, the course home page will contain information on what is expected for homework submission. Some assignments will be submitted electronically.

**Homework and Test Grading:** Adjustments to homework and test grades will take place only the week after grades have been returned to students. This means that you must bring any problems to our attention within one week of receiving a grade.

**Cheating will not be tolerated.** Any duplicate or near duplicate homework submissions will result in a minimum of a 2 letter grade drop for the final course grade for all students involved and may result in a failure for the entire course. For programming projects, you may *discuss* homework with other students, but sharing of 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](mailto:comporg@cs.rpi.edu). Please contact the instructor if there is any part of this policy you do not understand.

**Final Exam:** The final exam will take place during finals week. The exam will include material from the entire course (this will be a comprehensive exam).

### Tentative Topic and Reading Schedule

Week of	Topics	Readings
August	26 Course Introduction Data Representation	Chapter 1 2.1
September	*2 Integer Representation and Arithmetic	2.2,2.3
	9 Floating Point Program Representation Instruction Sets: moving data Instruction Sets: arithmetic & logical	2.4 3.1-3.3 3.4 3.5
	16 Instruction Sets: Control Instruction Sets: Procedures Instruction Sets: Arrays	3.6 3.7 3.8
	23 Assembly Programs	3.9-3.15
	30 Review and TEST #1	
October	7 Processor Architecture:Y86 Logic Design	4.1 4.2
	14 Sequential Y86 implementation	4.3
	21 Pipelining	4.4,4.5
	28 Optimization	Chapter 7
November	4 Memory	6.1-6.3
	11 Memory	6.4-6.7
	18 Review and Test #2	
	*25 Measuring Performance	Chapter 9
December	2 Virtual Memory	10.1-10.6,10.9

?      Final Exam