



Computer Organization

CSC-211 Fall 2011



Grading:

Homework:10% Exams: 25% Quizzes: 10% Labs: 30%

Final Exam: 25%

Instructor:

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Office hours: MWF 2:00-3:00pm, by appointment or anytime I'm in the office.

E-mail: canas@wfu.edu

Textbook: Morris Mano, "Computer Systems Architecture", Prentice Hall, 3rd Edition.

Website: Web page will be kept up to date and is your first source of information. All slides/assignments/home works/labs/ etc. will be posted. Most materials will be posted electronically rather than distributed as handouts

Pre-requisites: CSC-112 and MTH-117

Purpose: This course will introduce the student to computer organization and computer architecture. Computer organization is concerned with the way hardware components are connected together to form a computer system, while computer architecture is concerned with the structure and behavior of the various functional modules of the computer and how they interact.

Lab: This course has a lab associated with it. Attendance to all lab sessions is highly recommended since it forms an integral part of the course.

TENTATIVE TOPICS	LABS
1-Digital Logic Circuits	Lab A Introduction to Logic Works
2-Digital Components	Lab A Introduction to Logic Works
3-Data Representation	Lab 1 Register Transfers
4-Register Transfer	Lab 2 Arithmetic Unit
5-Basic Computer Organization	Lab 3 Instruction Register
6-Programming the Basic Computer	Lab 4 ROM's
7-Microprogrammed Control	Lab 5 OPCODE Decoder and ROM Selector
8-Central Processor Unit	Lab 6 RAM and Program Counter
9- Memory Organization	Lab 7 Boot
10-Input-Output Organization	

^{*}If you have a disability that may require an accommodation for taking this course, then please contact the Learning Assistance Center (758-5929) within the first two weeks of the semester.

Assignments: Expect to be busy with assignments—most of the time there will be an outstanding assignment of some kind so plan accordingly. You should consider the due date to be a hard deadline. All assignments must be typed and turned in as instructed. No emails will be accepted. If you believe that you have some extenuating circumstances talk to me early and as much in advance before a deadline as possible— last minute requests are strongly discouraged.

Quizzes: Weekly evaluations will be conducted. They will be un-announced, and can be given during the lecture or during the lab.

Cheating: Don't do it! If you get caught the consequences are very unpleasant. All submitted work must be **exclusively** your own and must have the following pledge written and signed:

"I have neither received nor given unauthorized aid on this assignment (test/homework/lab)."

Unsigned work will **not** be graded. Make sure you understand everything that you have submitted because you may be asked to explain it in case there are similarities that look less than accidental.

Cheating is (but not limited to):

- Copying, in whole or in part, the solutions of former students, current students, or any other human being, alive or dead. "Copying" includes transmission through email, the Web, smoke signals, or any other means.
- Obtaining solutions from the Internet or other archival sources.
- You are not allowed to even look at a solution.

Discussing assignments at a high level for clarification, discussing problems concerning the computing equipment, and studying in groups for examinations is not cheating, but every word you type for programming and written assignments must be your own!

If you have any questions about acceptable teamwork - ask.

Class participation: You are expected (and strongly encouraged) to attend and participate in all lectures, labs, web forums, blog and take notes as necessary. Experience shows that there is a strong correlation between regular class participation and good grades. Your attendance (physical presence) is not a formal requirement and, therefore:

- If you miss a class it is entirely your responsibility to find out about the covered material and catch up.
- If you miss a test due to a medical (or other) emergency be prepared to show some proof in order to get a make up.

Laptops/Cel-phones: Laptops/Cel-phones are not allowed in the classroom unless you have been instructed to bring them to class/lab.

Food: No food will be allowed in the classroom unless you share with the rest of the class.

How to succeed in this class:

- Read the assigned topic from the book before and after the class.
- • Take advantage of the PDF slides to save effort in taking notes.
- Pay attention and participate in the class discussions. If you plan on snoozing in class you should consider taking rest in bed instead.
- · Solve the problems after each covered chapter.
- If you don't understand something get help early.
- Start work on assignments/homeworks/labs early.
- Come to office hours prepared with specific questions or just to chat for a while.

Etiquette: Come to class on time—be considered to your fellow students. Coming late to class interrupts the lecture and distracts me and the students.

Special cases: If you have any special circumstances come and talk to me privately this week. If circumstances arise during the semester inform me ASAP.

Privacy: As a university policy, your grades and personal information are confidential – I will discuss them with you *only* in person (no email/phone inquiries).