
Digital System Architecture and Design

CPE300 Fall 2011

<http://www.egr.unlv.edu/~b1morris/cpe300>

Professor:	Brendan Morris	Class:	MW 17:30 - 18:45, CBC C316
E-mail:	brendan.morris@unlv.edu	Office Hours:	MTuW 16:30 - 17:30
Office:	SEB 3243	Final:	W Dec. 14, 18:00-20:00
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Textbook

Computer Systems Design and Architecture, V.P. Heuring and H. F. Jordan, 2nd Edition, ISBN: 0-13-048440-7

Grading

Midterm:	25%	10/19
Final:	30%	12/14 18:00
Project:	20%	Due 12/5
Homework:	25%	Weekly

Students may study together in groups but all assignments must be completed individually. Homework will be due in class on the designated date. No late homeworks will be accepted unless prior notification and arrangements are made. The course will have a term project on programming a 8051 microcontroller. You will be required to submit a project report and make a presentation.

Catalog Description

Digital systems, ALU and CPU implementations. Data & control path design using hardware description language. Memory organization: DRAM and SRAM, Interfacing.

Prerequisites: CPE200: Digital Logic

Topics

- Chapter 1: The General Purpose Machine
- Chapter 2: Machines, Machine Languages, and Digital Logic
- Chapter 3: Real Machines
- Chapter 4: Processor Design
- Chapter 5: Advanced Processor Design Topics
- Chapter 6: Computer Arithmetic and Arithmetic Unit
- Chapter 7: Memory System Design
- Project: Architecture and Programming 8051 Microcontroller

Additional course material not present in the textbook will be distributed to the class when needed.

Important Dates

08/29/11	Instruction Begins
09/02/11	Add/Drop Deadline (100% refund)
09/05/11	Labor Day Holiday
10/07/11	Drop Deadline (50% refund)
10/19/11	Midterm
11/07/11	Drop Deadline (0% refund)
12/02/11	Project Due
12/14/11	Final Exam

Course Policies

- There will be no make-up exams or late homework without prior arrangements.
- Extensions will only be granted for medical emergencies or due to the observance of a religious holiday. The instructor must be notified of the absence prior to the last day of late registration (9/2/11).
- If you have a documented disability that may require assistance, you will need to contact the Disability Resource Center (DRC) for coordination in your academic accommodations. The DRC is located in the Student Services Complex (SSC), Room A-143, phone 702-895-0866. Or visit the DRC website at: <http://drc.unlv.edu/>
- As a university student it is your responsibility to conduct yourself ethically and with integrity as described in the Academic Misconduct Policy. Cheating and plagiarism will not be tolerated. Any student caught cheating will be given an F grade.
(<http://studentconduct.unlv.edu/misconduct/policy.html>)