

*Computer Science 240 Syllabus*  
*Computer Organization*  
*Fall 2009*

Wednesday, September 9	No laboratory
Thursday, September 10	Welcome to CS240 Performance issues Reading: Patterson & Hennessy Chapter 1, Handouts: Introduction, Transparencies §1 Assignment 1: Due Monday, September 21
Monday, September 14	Introduction to MIPS Reading: Patterson & Hennessy §2.1 – 2.5 Handouts: Transparencies §2
Wednesday, September 16	Laboratory 1 Working with MIPS
Thursday, September 17	Making decisions Reading: Patterson & Hennessy §, §2.6, 2.7 Handouts: Transparencies §3
Monday, September 21	Procedures Reading: Patterson & Hennessy §2.8 Handouts: Transparencies §4 Assignment 2: Due Monday, September 28 Due: Assignment 1
Wednesday, September 23	Laboratory 2 Stack Programming and Procedures
Thursday, September 24	MIPS Addressing Modes Reading: Patterson & Hennessy §2.9, 2.10, §2.11 Handouts: Transparencies §5 Return: Graded Assignment 1
Monday, September 28	Translating & running programs Reading: Patterson & Hennessy §2.12, §B.1 -- §B.4 Handouts: Transparencies §6 Assignment 3: Due Monday, October 5 Due: Assignment 2
Wednesday, September 30	Laboratory 3 Assembler Project I

Thursday, October 1	Putting it all together
Reading:	Patterson & Hennessy §2.13
Handouts:	Transparencies §7
Return:	Graded Assignment 2
Monday, October 5	Pointers versus Arrays
Reading:	Patterson & Hennessy §2.14 -- § 2.19
Handouts:	Transparencies §8
Assignment 4:	Due Monday, October 12
Due:	Assignment 3
Wednesday, October 7	Laboratory 4
	Assembler Project II
Thursday, October 8	Arithmetic for computers
Reading:	Patterson & Hennessy Chapter 3
Handouts:	Transparencies §9
Return:	Graded assignment 3
Monday, October 12	Fall Break
	(No Class)
Wednesday, October 14	Digital logic level
	(Monday Schedule)
Reading:	Patterson & Hennessy §C.1, C.2
Handouts:	Transparencies §10
Due:	Assignment 4
Thursday, October 15	Basic digital circuits
Reading:	Patterson & Hennessy §C.3
Handouts:	Transparencies §11
Return:	Graded assignment 4
Monday, October 19	Midterm Examination 1
	Covers Lectures September 8 – October 8
Wednesday, October 21	Laboratory 5
	Electrical and digital laboratory concepts
Thursday, October 22	Design of the Arithmetic Logic Unit
Reading:	Patterson & Hennessy §C.5
Handouts:	Transparencies §12
Assignment 5:	Due Thursday, October 29
Monday, October 26	Flip-flops
Reading:	Patterson & Hennessy §C.7, C.8

Handouts:	Transparencies §13
Wednesday, October 28	Laboratory 6 Basic digital circuits
Thursday, October 29	Memory organization
Reading:	Patterson & Hennessy §C.8
Handouts:	Transparencies §14
Assignment 6:	Due Thursday, November 5
Due:	Assignment 5
Monday, November 2	Finite-State machines
Reading:	Patterson & Hennessy §C.10, § C.11
Handouts:	Transparencies §15
Return:	Graded Assignment 5
Wednesday, November 4	Laboratory 7 ALU Design
Thursday, November 5	Building a Datapath
Reading:	Patterson & Hennessy §4.1 – 4.3
Handouts:	Transparencies §16
Assignment 7:	Due Thursday, November 12
Due:	Assignment 6
Monday, November 9	In Control
Reading:	Patterson & Hennessy §4.4
Handouts:	Transparencies §17
Return:	Graded assignment 6
Wednesday, November 11	Laboratory 8 Latches, flip-flops, registers, and memory
Thursday, November 12	Better Living through Pipelining
Reading:	Patterson & Hennessy §6.1
Handouts:	Transparencies §18
Due:	Assignment 7
Monday, November 16	Pipelined MIPS
Reading:	Patterson & Hennessy §4.5, §4.6
Handouts:	Transparencies §19
Return:	Graded Assignment 7
Wednesday, November 18	Laboratory 9 Data and Microcomputer bus design

Thursday, November 19	Midterm Examination II Covers Lectures October 14 – November 2
Monday, November 23 Reading: Handouts: Assignment 8:	Cache Basics Patterson & Hennessy §5.1, §5.2 Transparencies §20 Due Thursday, December 3
Wednesday, November 25	Laboratory 10 Datapath
Thursday, November 26	Thanksgiving (No Class)
Monday, November 30 Reading: Handouts:	Measuring & Improving Cache Performance Patterson & Hennessy §5.3 Transparencies §21
Wednesday, December 2	Laboratory 11 Control
Thursday, December 3 Reading: Handouts: Assignment 9 Due:	Virtual Memory Patterson & Hennessy §5.4, 5.5, §5.6 Transparencies §22 Due Monday, December 10 Assignment 8
Monday, December 7 Reading: Handouts: Return:	Tinker: Introduction to OS Handouts Tinker OS, Transparencies §23 Graded Assignment 8
Wednesday, December 9	Laboratory 12 MIPS machine
Monday, December 10 Due:	Computer networks Assignment 9 (Returned on Wednesday outside E120SC)