

COMP251 Schedule

Week	Day	Date	Class number	Topic	Reading required	Review exercises	Homework exercises	work due	
1	Mon	8/27	1	Introduction and motivation	-	-	-		
	Thu	8/30	2	History and structure of computers	1.1, 1.2, 1.3, 1.5.6, 1.6, 1.7	2nd ed: r1.21, r1.24 3rd ed: r1.21, r1.25	2nd ed: e1.2, e1.5 (brief answer is fine)		
2	Mon	9/3	3	Unsigned whole numbers, and character codes	2.1, 2.2, 2.3.0, 2.3.1, 2.6.3, 2.6.4	2nd ed: r2.3, r2.6, r2.23 3rd ed: r2.3, r2.7, r2.26	2nd ed: e2.4a, e2.11b, e2.12a, e2.28a, e2.30 3rd ed: e2.4a, e2.18b, e2.19a, e2.37a, e2.39		
	Thu	9/6	4	project 1 discussion	-	-	-	HW1	
3	Mon	9/10	5	-					
	Thu	9/13	6	-					
4	Mon	9/17	7	Signed whole numbers; Floating-point numbers	2.4.0, 2.4.1, 2.4.2 (but skip "One's Complement"), 2.5	2nd ed: r2.9, r2.12, r2.16, r2.17, r2.20 3rd ed: r2.10, r2.13, r2.18, r2.19, r2.22	2nd ed: e2.5c (2's complement only), e2.5d (2's complement only), e2.6c, e2.9b, e2.19a, e2.25d 3rd ed: e2.6c (2's complement only), e2.6d (2's complement only), e2.11c, e2.14b, e2.27a, e2.33d		
	Thu	9/20	8	Boolean algebra and logic gates	3.2.0, 3.2.1, 3.3, 3.4	2nd ed: r3.4, r3.8, r3.9 3rd ed: r3.4, r3.9, r3.10	2nd ed: e3.2b, e3.23 3rd ed: e3.2b, e3.26	project 1	
5	Mon	9/24	9	Combinational circuits	3.5	2nd ed: r3.12, r3.13 3rd ed: r3.15, r3.16	2nd ed: e3.26, e3.28, e3.32 (hint for e3.32: use figures 3.5 and 3.11) 3rd ed: e3.29, e3.32, e3.43 (hint for e3.43: use figures 3.5 and 3.11)		
	Thu	9/27	10	Sequential circuits	3.6.0-3, 3.6.5	2nd ed: r3.14, r3.15, r3.19 3rd ed: r3.17, r3.18, r3.22	2nd ed: e3.40, e3.44 3rd ed: e3.51, e3.57	HW2 proj 2A	
6	Mon	10/1	11	Hardware overview	4.0-4.7	2nd and 3rd ed: r4.3, r4.10, r4.19, r4.23	2nd ed: e4.4 3rd ed: e4.5		
	Thu	10/4	12	Assembly language introduction	4.8-4.10	2nd and 3rd ed: r4.24, r4.26, r4.31	2nd ed: e4.15a 3rd ed: e4.23	project 2	
7	Mon	10/8	13	Assembly language and assemblers	4.11	2nd and 3rd ed: r4.34	2nd ed: e4.18 3rd ed: e4.30		
	Thu	10/11	14	Exam 1 (covers classes 1-11)	--	--	--	[Exam 1]	
8	Mon	10/15		[Fall Pause]					
	Thu	10/18	15	Subroutines in assembly language	4.12		2nd ed: e4.20 3rd ed: e4.32	HW3	
9	Mon	10/22	16	Assembly language practice	--	--	see webpage for HW question	HW3	
	Thu	10/25	17	Real-world architectures	4.14.0, 4.14.1	2nd and 3rd ed: r4.39	--		
10	Mon	10/29	18	[cancelled due to storm]					
	Thu	11/1	19	instruction set design	5.1-5.4	2nd and 3rd ed: r5.3, r5.4, r5.7, r5.14	2nd ed: e5.2a, e5.14 3rd ed: e5.2a, e5.18	project 3	
11	Mon	11/5	20	instruction level pipelining and real-world ISAs	5.5, 5.6.1, 5.6.3	2nd and 3rd ed: r5.18, r5.24	2nd ed: e5.16 3rd ed: e5.20		
	Thu	11/8	21	memory systems and performance	6.1-6.3	2nd and 3rd ed: r6.1, r6.2, r6.6	-	HW4	
12	Mon	11/12	22	[individual work on final project]					

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Week	Day	Date	Class number	Topic	Reading required	Review exercises	Homework exercises	work due
	Thu	11/15	23	Exam 2 (covers classes 12-21)	--	--	--	[Exam 2]
13	Mon	11/19	24	cache memory	6.4	2nd and 3rd ed: r6.9, r6.10, r6.13	2nd ed: e6.2, e6.4, e6.7a 3rd ed: e6.2, e6.4, e6.9a	
	Thu	11/22		[Thanksgiving]				
14	Mon	11/26	25	virtual memory	6.5.0-6.5.3	2nd and 3rd ed: r6.30, r6.36	2nd ed: e6.12 3rd ed: e6.16	
	Thu	11/29	26	I/O and disk systems	7.1-7.3, 7.4; 7.6.0, 7.6.1, 7.9.0, 7.9.2, 7.9.6	2nd and 3rd ed: r7.1, r7.6, r7.8, r7.11, r7.21, r.22	"How many disk failures can a RAID5 system tolerate? Explain." AND: 2nd ed: e7.2, e7.19a, e7.19b 3rd ed: e7.6, e7.25a, 7.25b	
15	Mon	12/3	27	hardware design project	tecs-ch-1, tecs-appendix-A	--	--	HW5
	Thu	12/6	28	hardware design project	--	--	--	
	Thu	12/13		Final exam, 2pm				