

Week	Lecture	Date	Material		Labs
			Lecture	Details	
1	1	8-Jan-2018	intro	course details, scale - find heavy ball	NO LABS
	2	9-Jan-2018	problem solving	PS strategies, ex: scale = T&E, Div&conq, Sudoku: T&E, bucket = divide and conquer or reduction, Articulate steps for a solution = automate solution	
	3	11-Jan-2018	history	exercise	
2	4	15-Jan-2018	algorithms/flowcharts/pseudocode	if/else	L1: Algorithms - even, leap year
	5	16-Jan-2018	algorithms/flowcharts/pseudocode	for/while	
	6	18-Jan-2018	algorithms continued	Algorithm practice	
3	7	22-Jan-2018	number representation	binary/hex to decimal conversion, binary addition, 2's complement	L2: Number representation
	8	23-Jan-2018	number representation	2's complement, hex<->binary conversion,	
	9	25-Jan-2018	fetch-decode-execute	Memory holds bits == program + data, types/size, endianness	
4	10	29-Jan-2018	fetch-decode-execute	ALU - logic, circuits	L3: Logic
	11	30-Jan-2018	architecture	Jason, Guest Lecture	
	12	1-Feb-2018	fetch-decode-execute	RTL, ASM	
5	13	5-Feb-2018	hardware	simple machine - PC, memory allocation	L4: Introduction to using the Simple Machine
	14	6-Feb-2018	architecture	static vs dynamic asm + compilation	
	15	8-Feb-2018	programming languages	Bill Bird, Guest Lecture	
6	12	12-Feb-2018	snow day	snow day	L5: counting memory accesses + pointers
	16	13-Feb-2018	assembly	dynamic alloc asm	
	17	15-Feb-2018	assembly	asm cont...	
7 (drop-day Feb 28)	19	19-Feb-2018			READING BREAK
	20	20-Feb-2018			
	22	22-Feb-2018			
	18	26-Feb-2018	intro to efficiency/linear search		
8	19	27-Feb-2018	binary search intro		L6: sorting
	1	1-Mar-2018	midterm		
	20	5-Mar-2018	binary search + midterm handback		
9	21	6-Mar-2018	search efficiency + sorting		L7: command line, running a python program, generate a
	22	8-Mar-2018	recursion	sum n to 0, sum list	
	23	12-Mar-2018	recursion	trace sum list, product, search, binary search	
10	24	13-Mar-2018	graphs		L8: recursion
	25	15-Mar-2018	Neil Ernst - technical debt and software problems		
	28	19-Mar-2018	Graphs		
11	29	20-Mar-2018	binary search tree		L9: Graph Traversal: dikjstra's algorithm
	30	22-Mar-2018	graph recursion problems		
	31	26-Mar-2018	databases + sql		
12	32	27-Mar-2018	databases + sql		L10: SQL
	33	29-Mar-2018	George Tzanetaks - physical computing, robots, virtual reality in the context of music		
	34	2-Apr-2018	Alex Thomo - AI		
12	35	3-Apr-2018	review		NO LABS
	36	5-Apr-2018	review		