

## CprE 381: *Tentative* Class Schedule (Spring 2019 — Prof. Duwe)

Week	Day/Date	Topic	Read	HW	Lab
1	Monday 01/14	Introduction; the computer	P&H 1.1-1.3		Lab 1: Simulation + VHDL Introduction
	Wednesday 01/16	Inside a computer	P&H 1.1-1.5		
	Friday 01/18	ISAs Intro	P&H 2.1-2.4		
2	Monday 01/21	No classes (University Holiday)			Lab 2: Review Building Basic Components
	Wednesday 01/23	MIPS Intro + Arithmetic	P&H 2.1-2.6	HW0	
	Friday 01/25	MIPS Control Flow	P&H 2.6-2.7		
3	Monday 01/28	MIPS Control Flow	P&H 2.7,2.9-2.10	HW1	Lab 3: Review Register File + Select Project Teams
	Wednesday 01/30	MIPS DSP			
	Friday 02/01	MIPS Procedures	P&H 2.9-2.10		
4	Monday 02/04	MIPS Machine Representation	P&H 2.8	HW2	Lab 4: Memory + Misc MIPS Components
	Wednesday 02/06	MIPS Machine Representation	P&H 2.8		
	Friday 02/08	From C to Executable			
5	Monday 02/11	Arithmetic	P&H 3.1-3.3,B.5-B.6	HW3	Project 1: ALU
	Wednesday 02/13	Arithmetic	3.1-3.3,B.5-B.6		
	Friday 02/15	Exam 1 Review			
6	Monday 02/18	Exam 1	Loc: TBD		Project 1: ALU
	Wednesday 02/20	Processor Design	P&H 4.1-4.4		
	Friday 02/22	Processor Design	P&H 4.1-4.4		
7	Monday 02/25	Processor Design	P&H 4.1-4.4	HW4	Project 1: Demo Project 2a: Single-cycle ALU/Mem
	Wednesday 02/27	Performance Metrics	P&H 1.4-1.10		
	Friday 03/01	Perf, Power, Benchmarking	P&H 1.7-1.10		
8	Monday 03/04	Multi-Cycle + Pipelining	P&H D.3,4,5	HW5	Project 2a: Single-cycle ALU/Mem
	Wednesday 03/06	Pipelining	P&H 4.5-4.6		
	Friday 03/08	Pipelining	P&H 4.5-4.6		
9	Monday 03/11	Hazards/Control	P&H 4.7-4.8	HW6	Project 2a: Demo Project 2b: Single-cycle Cntl Flow
	Wednesday 03/13	Hazards/Control	P&H 4.7-4.8		
	Friday 03/15	Hazards/Control	P&H 4.7-4.8		

Week	Day/Date		Topic	Read	HW	Lab
<b>Spring Break</b>	Monday	03/18	Get some sun			Lab Open
	Wednesday	03/20	Have some fun			
	Friday	03/22	Enjoy a pun			
<b>10</b>	Monday	03/25	Exceptions	P&H 4.9	HW7	<b>Project 2b: Demo</b> Project 3a: SW Pipeline
	Wednesday	03/27	Advanced Performance Opts	P&H 4.10-4.12		
	Friday	03/29	Exam 2 Review			
<b>11</b>	Monday	04/01	Exam 2	Loc: TBD		Project 3a: SW Pipeline
	Wednesday	04/03	Memory & Storage	P&H 5.1-5.2		
	Friday	04/05	Caches	P&H 5.2,5.5		
<b>12</b>	Monday	04/08	Cache Design	P&H 5.3	HW8	Project 3a: Demo Project 3b: HW Pipeline
	Wednesday	04/10	Cache Design	P&H 5.3		
	Friday	04/12	Cache Design	P&H 5.4		
<b>13</b>	Monday	04/15	Cache Design	P&H 5.4	HW9	Project 3b: HW Pipeline
	Wednesday	04/17	Cache Design	P&H 5.4		
	Friday	04/19	Cache Design	P&H 5.8		
<b>14</b>	Monday	04/22	Multicore Motivation	P&H 6.1-6.2	HW10	Project 3b: Demo Project 4: Perf Analysis
	Wednesday	04/24	Multicore + Parallelism Types including SIMD	P&H 6.3,6.5		
	Friday	04/26	GPUs			
<b>15</b>	Monday	04/29	TPU		HW11	Project 4: Demo
	Wednesday	05/01	HW Security			
	Friday	05/03	Exam 3 Review			
<b>Finals Week</b>	Monday	05/06	Exam 3 (7:30 - 9:30 a.m.)	Loc: TBD		
	Wednesday	05/08				
	Friday	05/10				