

COMP 122/L
Spring 2021 Schedule
Subject to Change

Section 0: (3 weeks)	Models for Communication and Computation
Section 1: (4 weeks)	Data Formats and Encodings for Computing
Section 2: (2 weeks)	Digital Logic: Combinational and Sequential Circuits
Section 3: (3 weeks)	Three Address Code and Assembly-Level Programming
Section 4: (2 weeks)	Parameter Passing: Registers, stacks, frames and buffers
With a one week buffer for cleanup and review	

Week#	Date	M	Tuesday	W	Thursday	F
1	8/30		Administrative Overview Big Picture		Models of Computing and Transmission	
			Tools for the Course & Checksum Lab		Checksum Lab	
2	9/6		Models of Computing and Communication		Space for Computing Main Memory	
					Review of Checksum program Introduction into C	
3	9/13		Instruction Set Architecture MIPS		Intro to OS and Execution Model	Q u i z # 0
			Checksum git, make, C, read		QtSPIM and "Hello World"	
4	9/20		Encodings: Functions /Mapping / State ASCII / UTF-8		Numbering Systems Review Addition, Carry Operations Status Flags Fixed numbers Scientific Notation	
5	9/27		Base Conversions		Binary Numbering Systems Complements	

					BCD / Binary Addition & Multiplication	
6	10/4		Floating Point Representation		Base64 Encoding	
			QtSPIM and "Hello World"		QtSPIM and "Hello World"	
7	10/11		Review		Exam #1	
			MIPS Data Declarations			
8	10/18		Boolean Algebra (and, or, not) 2 inputs Intro to Circuits		Boolean Algebra (cont) Combinational Circuits Half and Full Adder Decoders, Multiplexiers, BCD-7Segment	
9	10/25		Sequential Circuits FlipFlop Register Data & Instructions Memory: Decoder and Registers		Simple Pipeline Architecture <ul style="list-style-type: none"> • Fetch • Decode • Execute • Memory-Back 	Q u i z # 2
10	11/1		MIPS Architecture Overview Instruction Set Memory Layout and Registers		MIPS Architecture II Instruction Decoding Types of Instructions Memory Addressing Modes	
11	11/8		Basic Blocks Control Flow Branch and Jump Instructions		Data Declarations Memory Instructions & Alignments	

					Endianness	
					Byte Swap	
12	11/15		TAC Instructions MIPS: Arithmetic and Logical Instructions		Shifts, Rotates, and Masks Endianness	
13	11/22		Special Registers: Multi/Divide (Hi/Lo)		Thanksgiving	
			Exam #2			
14	11/29		Stack Operations: PUSH, POP		System Calls & Subroutine Calls Register Conventions: trap, interrupt, and call	
15	12/06		Subroutines & Frames Parameter Passing		CLEANUP AND REVIEW	
*	12/13	Cumulative Final: 12/14 @8:00 am 12/16 @3:00PM				