CS 271 Computer Architecture and Assembly Language
Course Calendar* Winter 2021

***Weeks are shown Sunday-Sunday, Assignments are due the 2nd Sunday 11:59pm Pacific Time unless otherwise specified. Schedule subject to change based on material pace.**

New Assignments are in BLACK. Due Assignments are in RED.

Module	Topics
#1: 01/03 – 1/10 **Syllabus Quiz** **Module 1 Summary Exercises** **Project #0** **Syllabus Quiz** **Module 1 Summary Exercises** **Project #0**	• Introduction to Assembly Language • Internal Data Representation • Binary/Hexadecimal Arithmetic • Computer Architecture Fundamentals • IA-32 Basic Execution Environment

#2: 1/10 – 1/17
 	
Module 2 Summary Exercises
Project #1
 	
Module 2 Summary Exercises
	• MASM Assembly
	  ○ Introduction
	  ○ How Instructions Work
	  ○ Defining Data (Variables)
	  ○ Arithmetic Operations
	• Irvine Procedures and your First Program

#3: 1/17 – 1/24
 	
Module 3 Summary Exercises
Project #2
 	
Module 3 Summary Exercises
Project #1
	• MASM Assembly
	  ○ Conditions and Control Structures
	  ○ Repetition Structures
	• Using the Visual Studio Debugger

#4: 1/24 – 1/31
 	
Module 4 Summary Exercises
Project #3
Quiz #1
 	
Module 4 Summary Exercises
Project #2
Quiz #1
	• MASM Assembly
	  ○ Defining Constants
	  ○ Data Validation
	• Endianness
	• IEEE 754 Floating Point Format

#5: 1/31 – 2/07
 	
Module 5 Summary Exercises
 	
Module 5 Summary Exercises
Project #3
	• The Runtime Stack
	• Program Design (Modularization)
	• MASM Assembly
	  ○ Procedure Calls/Returns
	  ○ Procedure Documentation
	  ○ Passing Parameters to Procedures

#6: 2/07 –2/14 **Project #4** **Midterm Exam** **Midterm Exam**	• Error Detecting Codes • Review for Midterm Exam **Midterm Exam** **(Available Thursday – Sunday only)**

CS 271 Computer Architecture and Assembly Language
Course Calendar* Winter 2021

Module	Topics

#7: 2/14 – 2/21
 	
Module 7 Summary Exercises
Project #5
 	
Module 7 Summary Exercises
Project #4
	• MASM Assembly
	  ○ More Parameter Passing (Stack)
	  ○ Arrays & Array parameters

#8: 2/14 – 2/28
 	
Module 8 Summary Exercises
 	
Module 8 Summary Exercises
Project #5
	• MASM Assembly
	  ○ Data-related operators
	  ○ String Processing
	  ○ Macros

#9: 2/28 – 3/07 **Module 9 Summary Exercises** **Project #6** **Quiz #2** **Module 9 Summary Exercises** **Quiz #2**	• Reverse Polish Notation (RPN) • IA-32 floating-point unit (FPU)
#10: 3/07 – 3/14 **Module 10 Summary Exercises** **Module 10 Summary Exercises** **Project #6**	• CISC vs. RISC Architectures • Parallelism • Review for final exam
#11: 3/14 – 3/17 Finals Week	**Final Exam** **(Available Sunday – Wednesday only)**