CS 271 Computer Architecture and Assembly Language
Course Calendar*   Spring 2022

*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: 3/27 – 4/3 **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: 4/3 – 4/10
 	
Module 2 Summary Exercises
Project #1
 	
Module 2 Summary Exercises
	• MASM Assembly
	   o Introduction
	   o How Instructions Work
	   o Defining Data (Variables)
	   o Arithmetic Operations
	• Irvine Procedures and your First Program

#3: 4/10 – 4/17
 	
Module 3 Summary Exercises
Project #2
 	
Module 3 Summary Exercises
Project #1
	• MASM Assembly
	   o Conditions and Control Structures
	   o Repetition Structures
	• Using the Visual Studio Debugger

#4: 4/17 – 4/24
 	
Module 4 Summary Exercises
Project #3
Quiz #1
 	
Module 4 Summary Exercises
Project #2
Quiz #1
	• MASM Assembly
	   o Defining Constants
	   o Data Validation
	• Endianness
	• IEEE 754 Floating Point Format

#5: 4/24 – 5/1
 	
Module 5 Summary Exercises
 	
Module 5 Summary Exercises
Project #3
	• The Runtime Stack
	• Program Design (Modularization)
	• MASM Assembly
	   o Procedure Calls/Returns
	   o Procedure Documentation
	   o Passing Parameters to Procedures

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Module	Topics
#6: 5/1 – 5/8 **Module 6 Summary Exercises** **Project #4** **Midterm Exam** **Module 6 Summary Exercises** **Midterm Exam**	• Error Detecting Codes • Review for Midterm Exam **Midterm Exam** **(Wednesday, May 4th)**

#7: 5/8 – 5/15
 	
Module 7 Summary Exercises
Project #5
 	
Module 7 Summary Exercises
Project #4
	• MASM Assembly
	    o More Parameter Passing (Stack)
	    o Arrays & Array parameters

#8: 5/15 – 5/22
 	
Module 8 Summary Exercises
 	
Module 8 Summary Exercises
Project #5
	• MASM Assembly
	    o Data-related operators
	    o String Processing
	    o Macros

#9: 5/22 – 5/29 **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: 5/29 – 6/5 **Module 10 Summary Exercises** **Module 10 Summary Exercises** **Project #6**	• CISC vs. RISC Architectures • Parallelism • Review for final exam
#11: 6/5 – 6/12 Finals Week	**Final Exam** **(Thursday, June 9th @ 6pm)**