

CS 271 Computer Architecture and Assembly Language

Course Calendar* Fall 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: 01/09 – 01/15 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: 01/15 – 01/22 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: 01/22 – 01/29 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: 01/29 – 02/05 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: 02/05 – 02/12 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

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Module	Topics
#6: 02/12 – 02/19 Module 6 Summary Exercises Project #4 Midterm Exam Module 6 Summary Exercises Midterm Exam	• Error Detecting Codes • Review for Midterm Exam Midterm Exam (Available Thursday – Sunday only)
#7: 02/19 – 02/26 Module 7 Summary Exercises Project #5 Module 7 Summary Exercises Project #4	• MASM Assembly ○ More Parameter Passing (Stack) ○ Arrays & Array parameters
#8: 02/26 – 03/05 Module 8 Summary Exercises Module 8 Summary Exercises Project #5	• MASM Assembly ○ Data-related operators ○ String Processing ○ Macros
#9: 03/05 – 03/12 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: 03/12 – 03/19 Module 10 Summary Exercises Module 10 Summary Exercises Project #6	• CISC vs. RISC Architectures • Parallelism • Review for final exam
#11: 03/19 – 03/22 Finals Week	Final Exam (Available Sunday – Wednesday only)