

CS 271 Computer Architecture and Assembly Language

Course Calendar* Fall 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: 09/22 – 10/03 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: 10/03 – 10/10 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: 10/10 – 10/17 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: 10/17 – 10/24 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: 10/24 – 10/31 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: 10/31 – 11/07 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: 11/07 –11/14 Module 7 Summary Exercises Project #5 Module 7 Summary Exercises Project #4	• MASM Assembly ○ More Parameter Passing (Stack) ○ Arrays & Array parameters
#8: 11/14 – 11/21 Module 8 Summary Exercises Module 8 Summary Exercises Project #5	• MASM Assembly ○ Data-related operators ○ String Processing ○ Macros
#9: 11/21 – 11/28 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: 11/28 – 12/05 Module 10 Summary Exercises Module 10 Summary Exercises Project #6	• CISC vs. RISC Architectures • Parallelism • Review for final exam
#11: 12/05 – 12/08 Finals Week	Final Exam (Available Sunday – Wednesday only)