# CS 271  Computer Architecture and Assembly Language
## Course Calendar*  Winter 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.

<table>
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<th>Module</th>
<th>Topics</th>
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| #1: 01/02 – 01/09 | • Introduction to Assembly Language  
Module 1 Summary Exercises  
Syllabus Quiz  
Project #0  
Module 1 Summary Exercises  
Syllabus Quiz  
Project #0  
Project #0 |
| #2: 01/09 – 01/16 | • MASM Assembly  
  o Introduction  
  o How Instructions Work  
  o Defining Data (Variables)  
  o Arithmetic Operations  
  Irvine Procedures and your First Program  
Module 2 Summary Exercises  
Module 2 Summary Exercises  
Project #1  
Module 2 Summary Exercises  
Project #1 |
| #3: 01/16 – 01/23 | • MASM Assembly  
  o Conditions and Control Structures  
  o Repetition Structures  
  Using the Visual Studio Debugger  
Module 3 Summary Exercises  
Project #2  
Module 3 Summary Exercises  
Project #1  
Module 3 Summary Exercises  
Project #1 |
| #4: 01/23 – 01/30 | • MASM Assembly  
  o Defining Constants  
  o Data Validation  
  Endianness  
  IEEE 754 Floating Point Format  
Module 4 Summary Exercises  
Project #3  
Quiz #1  
Module 4 Summary Exercises  
Project #2  
Quiz #1  
Module 4 Summary Exercises  
Project #2  
Quiz #1 |
| #5: 01/30 – 02/06 | • The Runtime Stack  
  Program Design (Modularization)  
  MASM Assembly  
  o Procedure Calls/Returns  
  o Procedure Documentation  
  o Passing Parameters to Procedures  
Module 5 Summary Exercises  
Module 5 Summary Exercises  
Project #3  
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Project #3 |
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| #6: 02/06 – 02/13 | • Error Detecting Codes  
|             | • Review for Midterm Exam                        |
| Module 6 Summary Exercises  
Project #4  
Midterm Exam  
Module 6 Summary Exercises  
Midterm Exam | **Midterm Exam**  
*(Available Thursday – Sunday only)* |
| #7: 02/13 – 02/20 | • MASM Assembly  
|             | • More Parameter Passing (Stack)  
|             | • Arrays & Array parameters                    |
| Module 7 Summary Exercises  
Project #5  
Module 7 Summary Exercises  
Project #4 | **Midterm Exam**  
*(Available Thursday – Sunday only)* |
| #8: 02/20 – 02/27 | • MASM Assembly  
|             | • Data-related operators                        |
|             | • String Processing                             |
|             | • Macros                                        |
| Module 8 Summary Exercises  
Module 8 Summary Exercises  
Project #5 | **Midterm Exam**  
*(Available Thursday – Sunday only)* |
| #9: 02/27 – 03/06 | • Reverse Polish Notation (RPN)  
|             | • IA-32 floating-point unit (FPU)               |
| Module 9 Summary Exercises  
Project #6  
Quiz #2  
Module 9 Summary Exercises  
Quiz #2 | **Midterm Exam**  
*(Available Thursday – Sunday only)* |
| #10: 03/06 – 03/13 | • CISC vs. RISC Architectures  
|             | • Parallelism                                   |
|             | • Review for final exam                         |
| Module 10 Summary Exercises  
Module 10 Summary Exercises  
Project #6 | **Midterm Exam**  
*(Available Thursday – Sunday only)* |
| #11: 03/13 – 03/16 | **Final Exam**  
*(Available Sunday – Wednesday only)* |
| Finals Week |                                                 |