**CS 271  Computer Architecture and Assembly Language**  
**Course Calendar*  Fall 2020**

*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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<tr>
<th>Module</th>
<th>Topics</th>
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<tr>
<td>#1: 09/27 – 10/04</td>
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  **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: 10/04 – 10/11 |  
  **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: 10/11 – 10/18 |  
  **Module 3 Summary Exercises**  
  Project #2  
  **Module 3 Summary Exercises**  
  - MASM Assembly  
    - Conditions and Control Structures  
    - Repetition Structures  
  - Using the Visual Studio Debugger |
| #4: 10/18 – 10/25 |  
  **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: 10/25 – 11/01 |  
  **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: 11/01 – 11/08 |  
  **Project #4**  
  **Midterm Exam**  
  - Error Detecting Codes  
  - Review for Midterm Exam  
  **Midterm Exam**  
  (Available Thursday – Sunday only) |
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| #7: 11/08 – 11/15 | **Module 7 Summary Exercises**  
**Project #5**  
**Module 7 Summary Exercises**  
**Project #4**  
- MASM Assembly  
  - More Parameter Passing (Stack)  
  - Arrays & Array parameters |
| #8: 11/15 – 11/22 | **Module 8 Summary Exercises**  
**Module 8 Summary Exercises**  
**Project #5**  
- MASM Assembly  
  - Data-related operators  
  - String Processing  
  - Macros |
| #9: 11/22 – 11/29 | **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: 11/29 – 12/06 | **Module 10 Summary Exercises**  
**Module 10 Summary Exercises**  
**Project #6**  
- CISC vs. RISC Architectures  
- Parallelism  
- Review for final exam |
| #11: 12/06 – 12/09 | **Final Exam**  
(Available Sunday – Wednesday only)  
**Finals Week** |