

Syllabus: CS 17– Assembly Language Programming

Section 1766, Spring 2023, March 6 – June 4

Professor M. Haghoo

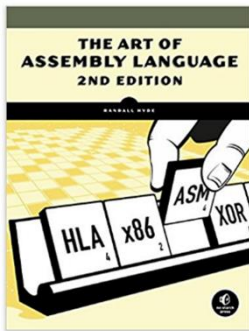
- Contact Information:
- Canvas email
- Virtual (Zoom) Office Hours: W 7:00-8:00 PM

Course Description This course covers programming in Assembly language. It is based on Intel 80x86 CPU architecture. The course covers both concepts and programming.

Pre-requisite: CS 50 (or C++, or Java)

Course Website: Login to Canvas for course schedule, assignments and instructions

Textbook



The Art of Assembly Language,

2nd Edition, by Randall Hyde

ISBN: 9781593272074

Textbook is required.

The textbook is available on the bookstore and Internet.

Instructor will provide some reading materials.

Chapter 1 of the textbook is posted on Modules section (on Canvas).

Required Software

- You will be using shareware software specifically targeted for Pentium CPU-based computers.
- To use a Mac, you will need to have an Intel-based Mac. There is a Mac version of the software for this class. Or, you can load Windows onto your Mac, boot into Windows and act like a Windows machine.
- It is very important that you acquire and install the software right away to iron out any potential issues with the hardware you intend to use in this class. The students have used it with Linux, and all Windows versions.
- See **Section 1.2**, Page 4 (of the textbook) for obtaining, installing, and using the HLA software. Chapter 1 of the textbook is posted on **Modules** section.
- See **Discussion1** (D1: Software Issues) to ask or answer questions regarding installation and use of HLA software.
- Software is available at SMC Computer Science lab.

Course Objectives

1. Design and construct assembly language programs
2. Examine the capabilities of the microcomputer and its machine level operations
3. Design and develop the ability to solve computer programs in Assembly Language by planning, coding, testing and debugging problems
4. Construct a flowchart of the programming logic exhibited by a program

Student Learning Outcomes:

- Apply various programming concepts including control flow, looping, conditional statements and elementary data structures to create software applications.
- Design and create programs written in Assembly Language.

Grading – CS 17

Proportions		Number of Items	Total Points (Approximation)
Projects	40%	Bi-Weekly	250
Quizzes	30%	Weekly	180
Final	25%	One final	150
Participation & Questions	5%	Continuous	50
Total	100%		

- “**Total**” is computed by scaling all scores and then adding them.
- **Do not conclude** your score from **Canvas** totals. While **Canvas** indicates your progress, it does not show your accurate score.
- Canvas does not consider percentage of each score item.

Schedule – CS 17

(Subject to Minor Changes)

Week	Week of	Concepts	Quizzes	Projects
1	03/06/23	Chapter 1	Quiz 1	About Me
2	03/13/23	Chapter 1	Quiz 2	Project 1
3	03/20/23	Chapter 2	Quiz 3	
4	03/27/23	Chapter 2	Quiz 4	Project 2
5	04/03/23	Chapter 3	Quiz 5	
	04/10/23	Spring Break		
6	04/17/23	Chapter 3	Quiz 6	Project 3
7	04/24/23	Chapter 4	Quiz 7	
8	05/01/23	Chapter 5	Quiz 8	Project 4
9	05/08/23	Chapter 5, 6	Quiz 9	
10	05/15/23	Chapter 6, 7	Quiz 10	Project 5
11	05/22/23	Chapter 7	Quiz 11	
12	05/29/23	Final		

Completing Assignments on Time

- ▶ All assignments must be submitted by the deadline. No excuse will be accepted. Why?
 - ▶ Deadline is a deadline.
 - ▶ It is not fair to those students do the assignments on time.
 - ▶ Missing one or two assignments will not fail you, provided that you do the other ones reasonably well.
 - ▶ There will be extra points and assignments.
- ▶ I will not reply to emails asking for extension, exception, etc.

I will not replay to emails sent on the assignments due date asking for help or explanation. Make sure to start early

Avoid Plagiarism

It is OK that two students help each other.

But:

- ▶ Copying files from another student or other sources is definitely plagiarism.
- ▶ Copying a piece of file from another student or other sources is also plagiarism.
 - ▶ See also next slide