CSUS

COLLEGE OF ENGINEERING AND COMPUTER SCIENCE

Department of Computer Science

CSC 35

Spring 2021

Dr. Ghansah

**Lab #2: Hello CSC35 and Negative Numbers !!!**

**Purpose:** This Lab is intended to 1) further help you get familiar with the Visual Studio and MASM programming environment including debugging 2) teach you how to use Irvine Libraries, particularly to output character strings to the screen; 3) demonstrate how negative numbers are represented in hardware.

**Procedure**

*PART 1*

Modify the Hello CSC35 assembly language program provided in .asm file in Canvas by providing the appropriate information at a) the heading in the comment section (eg, name, course, semester, etc) and b) the .data section of the program by replacing *Your Name* with your own full name and Semester with the current semester. For instance, if your name is John Smith, the program should display the following on the screen.

Hello CSc 35 Class, Spring 2021

My Name is John Smith\*\*\*\*

a) Assemble, Link, and debug the modified program.

b) Learn how to set break points, step through the program, and watch changes in register values all within the debugger.

PART 2. This part is about negative and positive numbers in binary also on the same .asm file above. Beginning with the fifth line of code on the same .asm file above, explain what is going on by putting a comment on each line indicating the value in the corresponding register indicated in the debugger as you step through the program line by line (F10).

**Testing:** Be sure to test your program and make sure it works before you submit it to your lab instructor on CANVAS as specified below.

**Demonstration**: Demonstrate your program by providing screen shots showing the steps, especially assembly and debugging steps including changes in register values. Normally, the lab instructor will assemble and run the documented source code you upload to CANVAS. However, since the program was given to you the instructor will check whether your report contain the proper documentation and steps.

**Submission:** Submit electronic copy of your program to CANVAS including a well *documented program (source code)* and output (screen shots). **Filenames must be according to the format specified in the syllabus**