

## 22C:060: Computer Organization

### Homework 1

Total points = 50

Due Feb 7, 2008, 11:59: 59 PM

1. Carefully read the handout on the course webpage about MIPS assembly language programming and the SPIM simulator. Read Appendix A of the textbook to review assembly language programming tips, as well as the various system calls for performing various input and output operations. Also, check out the sample program.
2. Be generous about using comments to improve readability. Insufficient comments will lead to loss of grade. Include a comment at the beginning specifying the purpose of the program.

To submit the program, *zip* (or *tar*) them into a single file. Submit your solution through ICON dropbox.

#### ***Problem 1. (10 points)***

Print the line "Hello World" on the screen using a system call. Then modify it to print your name.

#### ***Problem 2. (40 points)***

Store the array [9, 72, 101, 108, 108, 111, 13, 10, 0] in memory (Hint: this should be in the .data portion of your code)

Now, loop through the array elements and display each entry with the *print\_char* system call. The loop will exit and the program will terminate when it encounters the NULL character 0.