# CISC 260 Machine Organization and Assembly Language

Assignment # 4

**(Due: April 5, 2018)**

1. Do the following exercises from H&P Chap 02_COD 4e ARM.pdf (posted on Canvas):

   a. 2.4.1, [5pts]
   b. 2.5.1; [5pts]
   c. ~~2.10.1; [5pts]~~
   d. ~~2.10.2; [5pts]~~
   e. 2.13; [15pts]
   f. 2.16; [15pts]
   g. 2.17.4; [5pts]
   h. 2.18.2. [5pts]

2. [40pts] In this part of the assignment you practice how to write assembly code and use the ARM sim# to test run your code. ARM Sim# is available for download for Windows and MACs at (http://armsim.cs.uvic.ca/).

   Implement functions in assembly language. You are asked to write a program to compute the Fibonacci numbers, using recursive function calls.

```
Fib (n) {
    if (n == 0 || n == 1) return n;
    else return Fib(n-2) + Fib(n-1);
}
```

Note that your program has to use recursive function calls; you cannot convert the function into an iterative version first and then write a program implementing the iterative version. Test run your program on the ARM Sim#.

Submission: For problem 2, you need to submit the assembly code in plain text file.