

# **COSC519**

## **Home work # 2**

**60** points

This homework focuses on learning system calls and Windows API. It also allows students to learn the Visual Studio environment for compiling and writing a simple Windows API.

1. Enhance the hello.c program to open a file, read from the file, write to the file, and close the file. Understand how a system call is invoked and how it works by generating and reading an ASM file. Identify and mark the system calls in your ASM file. Submit your hello.c and ASM files showing the system calls (Use Linux).
2. Use the above hello.exe file and objdump command to create an asm file in Linux and mark all system calls in this program. Notice that some are system calls and some are local calls in the asm file. System calls have UND symbols.
3. Use at least one Windows API call in your program and run it in the Visual Studio environment. Submit your program and output. What is the difference between system call and API?

**SUBMIT** the above as a single pdf file in Blackboard.