## Programming Assignment 1

### Objective

The objective of this assignment is to familiarize yourself with the standard system calls and how to use them in a program.

### Assignment: Simple File Copy Program

Write a C/C++ program that only uses only standard system calls to copy the contents of one file to another file. You should only have to use the *open(), close(),* *read()* and *write()* system calls. You can use *printf()* or *fprintf()* for error or informational messaging. Your program should not explicitly prompt the user for input/output filenames but rather those should be provided on the command line.

#### Simple File Copy Program Implementation

The filecopy program (***filecpy.c***) is a simple text-based program that takes two arguments from the command line, again no prompting the user from within the program.

1. To start the filecpy program

*./****filecpy*** *<input file> <output file>*

where *<input file>* is the file that is to be copied and *<output file>* is the file that is copied to. After your program completes you should be able to do a *“diff”* command on the two files and they should be identical.

#### Error Handling

Perform the necessary error checking to ensure that the input file exists and that the output file can be written. You can use the system error “*errno*” and “*strerror*” to provide additional error messaging.

### Grading

The program will be graded on the basic functionality, error handling and how well the implementation description was followed. Be sure to name your program **filecpy.c** (no extra characters, capitals) Note that documentation and style are worth 10% of the assignment's grade!

### Submission

The program (source code only) should be posted to cougar courses on the due date.