**CS 2060 Fall 2017**

**Exam #1 Review**

We’ve covered a lot of terminology and I will **NOT** be asking you to define any terms **BUT** you need to know the meaning of the terminology we’ve covered.

**Chapter 1 - Introduction to Computers, the Internet and the Web**

* Questions about programming style and documentation
  + Based off homework grade sheet
  + What are meaningful names, proper indentation, camel case, constants
* Difference between compiler, logical and runtime errors
  + What causes each type of error?
  + When or how they occur

**Chapter 2 – Introduction to C**

* Know how to print output to console and obtain input from keyboard
  + printf and scanf
* Know the different data types and what a "data type" tells the compiler
  + int, float, double, char
* Know when and how to declare variables, assign values to, use in statements
* Know when and how to declare constants, assign values to, use in statements
* Be able to use numeric operations (+, - , \*, /, %)
  + Integer division and the issues you can have with integer division
* Know how to evaluate numeric expressions
* Understand operator precedence when it comes to evaluating numeric expressions
* Know what the **relational operators** and **equality operators** are
* Know how to use relational operators to create boolean expressions
* Know how to evaluate boolean expressions

**Chapter 3 – Structured Program Development in C**

* Understand these different types of **if statements**
  + One way if statement
  + Two way if statement
  + Nested if statement
* Understand how a **while loop** works
* Simple type conversions - explicit casting – we did this with integer division example
* Be able to use the increment and decrement operators
* Be able to understand code and/or write code snippets with **if statements**
* Be able to understand code and/or write code snippets with **while loops**

**Chapter 4 – C Program Control**

* Understand the difference between counter controlled loops and sentinel controlled loops
* Understand how a ***for loop*** works
* Understand how a ***do-while loop*** works
* Know when to use one loop structure over the other
* Understand what causes infinite loops
* Understand how a **switch statement** works
  + Understand how fall-through behavior works
  + Understand how the default case works
* Know the difference between an **if statement** and a **switch statement**
* Understand char data types
  + What ASCII code is and how it is used at a high level
* Know how to use logical operators together with the relational/equality operators to create boolean expressions
  + Know the truth tables
* Know the operator precedence for all the operators
* Be able to understand code and/or write code snippets with **for loops** and **do-while loops**
* Be able to understand code and/or write code snippets with **switch statements**