

# **Concept Check List CSC 5**

Prior to Midterm

Program Composition

- Location of Comments, Libraries, and Execution
- Input → Process → Output
- The Programming Process
- Procedural vs. Object Oriented

Basic Programs

- I/O Library
- cout, cin
- Variables type and Range (Local vs. Global) (Scope)
  - (signed vs. unsigned)
  - bool, char, short, int, long
  - float, double
  - string
- Literals
  - Integer, Floats, Scientific Notation
  - Binary, Octal, Decimal, Hex
- Comments
- Scope
- Arithmetic Operators Precedence
- Style

Expressions, Libraries, and Formatting

- Mathematical, Statements
- Type Conversions
  - Explicit vs. Implicit
  - Casting
- Constants
  - Local vs. Global
- Formatting
  - Input vs. Output
- Math Library
- Hand Tracing
- File Input/Output

Decisions

- Relational Operators
- Logical Operators
- Constructs
  - If, If-else if-else, Switch

- Conditional Operator
- Flowcharting
- Pseudo-Code
- Validating User Input
  - Keyboard, File

## Loops

- Operator Shortcuts
  - increment, decrement
  - post vs. pre
- Looping Constructs
  - while, do-while, for
- Counter
- Sentinel
- Nesting

## Functions

- Prototyping
- None to multiple parameters
- Pass by value vs. pass by reference
- Void vs. return
- Boolean returns
- Local vs. Global
- Static Variables
- Defaulted Arguments
- Overloading
- Stubs and Drivers