

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

Arrays

- 1-Dimensional
- 2-Dimensional
- Parallel
- Pass as parameters into functions
- Searching
- Sorting

Pointers

- Dynamic Arrays
- Strings
- Vectors

ADT

- Structures

Files

- Ascii
- Binary