Study Guide for Final Exam

Chapter 1
• Know what makes up an algorithm
• Know what makes up the Development Process
• Know what Polya’s Four-Step Process is
• Know some of the common high level languages

Chapter 2
• Know the Most Common techniques for representing program designs

Chapter 3
• Know what makes a valid identifier and what doesn’t
• Know the common reserve words, i.e. the ones we use in our programs
• Know the order of operator precedence and how to calculate answers for simple math problems using the rules
• Know what the computer does when computing an answer using mixed types

Chapter 4
• Know how the extraction operator works when it encounters whitespace
• Know what you need to have in your program if you want to get floating point numbers to look correct
• Know how to read until input failure
• Know what function you need to use if you want to read the white space in a string

Chapter 5
• Know how to determine the results of a Boolean expression
• Know where the Boolean operators are in the operator hierarchy
• Know the two main selection statements and how they work
• Know what the three types of variables that can be used in a switch statement

Chapter 6
• Know the two main loop types
• Know the different control loops
• Know how to change a while loop to a for loop and vice versa

Chapter 7
• Know the difference between pass-by-value and pass-by-reference
• Know where functions find values for variables that are needed
• Know the difference between global and local scope
Chapter 8
• Know how to declare arrays
• Know how arrays elements are indexed
• Know how to pass arrays to functions
• Know that you can use parallel arrays, but what is a better way
• Know how 2-D arrays are processed

Chapter 9
• Know how to declare an enumerated type
• Know which selection statements enums are best used with

Chapter 10
• Know how to declare a struct
• Know how to access different members of a struct
• Know how to create an array of struct and how to access the members

Chapter 11
• Know the two main ways to search an array

Chapter 12
• Know the two main ways to sort an array

Chapter 13
• Know what the two main pieces of an object are