COSC 1550 Exam 2 Study Guide

The Exam 2 will cover Chapter 1 ~ 5, with emphasis on Ch. 4 – the if statement and its variations

All the previous topics covered in Exam 1 may also appear in Exam 2.

Here is the study guide for Chapter 4 and 5:

4.1, 4.8, 4.13

Knowing the operator precedence and how to evaluate a logical expression

( == >= <= > < != && || ! )

4.2 ~ 4.7

Writing if statement and its variations – if/else statement, if/else if statement, and

if/else if/else statement

The difference between two if statements and an if/else if statement

Nested if statement and its variations:

You can treat an entire if statement (or its variation) as 1 statement and

put it in a branch of another if statement (or its variation).

You must understand every question of the exercise worksheet.

4.7, 4.9, 4.10, 4.11

Knowing some examples of if statement and its variations

4.12

Comparing non-numeric data – char and string

4.14

Knowing switch statement

What happens if we omit the break statement in a case branch?

4.15

The idea of “block”

If you define a variable inside the block of a branch, what is the scope of the variable?

5.1

The increment and decrement operators

What is the difference between x++ and ++x?

5.2, 5.5

Writing while loop and do-while loop

What is the different between while and do-while?

Avoid creating an infinite loop

5.3

Input validation (also use the in-class exercise Question 1 as your reference)

5.4, 5.8

How to control the number of times the loop is executed?

5.6

Writing for loop

The three parts of the loop header (if you omit a part, what will happen?)

How the for loop works

How to control the number of times the loop is executed?

The difference between for loop, while loop, and do-while loop

(rewrite a for loop using a while loop)

If you define a variable in the initialization statement, what is the scope of it?

5.7

How to compute the sum and the product of a series of numbers?

(also use the in-class exercise Question 2 as your reference)

5.9

The difference between for loop, while loop, and do-while loop

5.10

Nested loops

You can treat an entire loop statement (any type) as 1 single statement

and put it inside the block (the body) of any other loop.

Mix loop and branch

You can treat an entire loop statement (any type) as 1 single statement

and put it inside a branch of an if statement (or its variation).

You can also treat an entire if statement (or its variation) as 1 statement

and put it inside the block (the body) of any loop.

Sections 4.13, 5.11, 5.12 will not be covered by Exam 2.