



Introduction To Computer Science II School Year 2013-2014

Course Description:

This course will cover the basic syntax, logic, and operation of the C++ language. In this course students will create programs and be fully responsible for writing, implementing, documenting, and evaluating their solutions using the C++ programming language. Students will be responsible for defining problems, writing pseudocode, and creating flowcharts, analyzing data, test, debug, and modifying programs in order to solve real world problems

Course Content:

C++ Environment

Edit, Preprocess, Compile, Link, Load, Execute

#include, using statements, cin, cout, endl

Memory concepts, what is a variable

Order of operations

The Selection Structure

If statement

If/Else statement

Case Statement

Repetition Structure

While

Do / While

For loop

Functions

Math functions

Function arguments

Function Parameters

Function Definition

Function Prototype

Special increment operators

Header files

Call by value

Call by reference

The Rand() function

Scope Rules

Arrays

Declaring arrays

Initializing arrays

Placing data into arrays

Sorting Arrays
Searching Arrays
Passing Arrays to functions

Pointer
Definition of
Relationship between pointers and arrays

Classes
Class definition
Public
Private
Member functions
Constructors

Required Textbooks and/or Other Reading/Research Materials

Include a note about the selections here.

Starting Out With C++ Publisher Addison Wesley 2009

Course Requirements:

Students will be required to write use cases that illustrate a solution to a programming problem. Using the use case students will develop C++ programs using the concepts listed in the course content. All students are required to complete all labs, quizzes, tests, and homework assignments. Chapter reading will be required.

Grade Components/Assessments:

The following methods will be used to assess and evaluate student performance.

Key with me	10%
Labs	40%
Tests	50%

Each marking period is worth 20% of a student's overall grade. The midterm and final exam are each worth 10% of a student's overall average:

Quarter 1	20%
Quarter 2	20%
Midterm	10%
Quarter 3	20%
Quarter 4	20%
Final	10%

Required Summer Reading/Assignments:

None

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