Republic of Iraq
The Ministry of Higher Education and Scintific Resrearch
Supervision and Scientific Evaluation Body

College : Shatt Al Arab University College
Department : Computer Science
Stage: 2nd Stage
Lecturer Name : Hussein Mazin Mohammed
Academic Status : Assistant Lecturer
Qualification: MSc

Course Weekly Outline

Course Lecturer	Hussein Mazin Mohammed
e-mail	hhesein5@gmail.com
Title	Object-Oriented Programming in C++.
Course Coordinator	Term
Course Objective	Understanding computers and learning the basics of coding and helps students to develop an appreciation of how things work. It also teaches them how programmer use math, programming skills to solve problems in a logical and creative way.
Course Description	The learner's ability to understand the basic concepts of object-oriented programming, the programmer's ability to analyze, design and implement software solutions to applied problems, apply the concepts of inheritance in the programs he builds, develop general programs that do not depend on a specific type of data, as well as deal with commonly used algorithms and data structures
Textbook	"Object-Oriented Programming in C++", 4th Edition, Robert Lafore, Sams Publishing, 2002.
References	1- "CPA: Programming Essentials in C++", C++ INSTITUTE, 2016. 2- https://www.tutorialspoint.com/cplusplus/cpp_data_types.htm 3- https://www.w3schools.com/CPP/default.asp 4- "C++ Tutorial", tutorialspoint.

Course Assessment	Term Exam	Project	Quizzes and Attendance	Lab	Final Exam
	20	-	10	10	60
General Notes					

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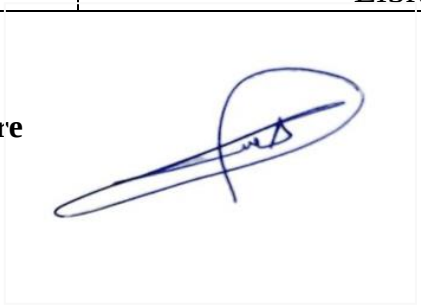
Week	Date	Topics Covered	Number of Hours	Notes
1-2		C++ Review (Program structure, namespace, identifiers, variables, constants, enum, operators, typecastings, control structures and functions).	**4**	
3		Introduction to Object-Oriented Programming in C++.	**2**	
4-8		Objects and Classes (Basics of objects an classes in C++, private and public members, static data and function members, constructors and their types, destructors and operator overloading).	**10**	
9-14		Inheritance (Concepts of Inheritance, types of inheritance: single, multiple, multilevel, hierarchical, hybrid, protected members, overriding, virtual base class).	**12**	
15-19		Polymorphism (Pointers in C++, Pointes and Objects, this pointer, virtual and pure virtual functions, Implementing polymorphism).	**10**	

20-24		I/O and File management (Concepts of streams, cin and cout objects, C++ stream classes, Unformatted and formatted I/O, manipulators, File stream, C++ File stream classes, File management functions, File modes, Binary and random files).	**10**	
25-30		Templates, Exceptions and STL (What is template? function templates and class templates, Introduction to exception, try-catch-throw, multiple catch, catch all, rethrowing user defined exceptions, Overview and use of Standard Template Library).	**12**	

Lecturer signature



Head of Department Signature