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University: Shatt Al Arab University Faculty: Engineering Technologies Department: Computer Technology

**Engineering Stage: Second** 

Triple Name: Muhannd Kariem Abd Scientific Title: Assistant Lecturer

**Qualification:** 

**Work Location: Shatt Al Arab** 

University

## **Course Weekly Outline**

<b>Course Lecturer</b>	Muhannd Kariem Abd Alsalihi						
e-mail	Muhannd.kariem@sa-uc.edu.iq muhannd82@gmail.com						
Title	Object Oriented Programming						
<b>Course Objective</b>	Clarify the concept of object-oriented programming with an explanation of its applications						
Course Description	Understanding, designing and applying object-oriented programming principles and applying object-oriented solutions to programming issues.						
Textbook	<ol> <li>"Object-Oriented Programming in C++" by Robert Lafore</li> <li>"Design Patterns: Elements of Reusable Object-Oriented Software" by Erich Gamma, Richard Helm, Ralph Johnson, and John Vlissides</li> </ol>						
References							
Course Assessment	Term Exam 10	Lab 10	Report 10	Homework 10	Quiz 10	Final Lab 10	Final Exam 40



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Week	Date	Topics Covered	Number of Hours
1	2024/9/21	Introduction to C++ programming environment and basic syntax.	2lab 2luc
2	2024/9/28	Implementing simple classes and objects.	2lab 2luc
3	2024/10/5	Experimenting with inheritance and polymorphism in C++.	2lab 2luc
4	2024/10/12	Implementing data abstraction and encapsulation.	2lab 2luc
5	2024/10/19	Problem-solving exercise using object- oriented design principles and patterns.	2lab 2luc
6	2024/10/26	Utilizing C++ libraries and frameworks for application development.	2lab 2luc
7	2024/11/2	Midterm Exam (No lab session).	2lab 2luc
8	2024/11/9	Implementing exception handling techniques in C++.	2lab 2luc
9	2024/11/16	Testing and debugging strategies for object-oriented programs.	2lab 2luc
10	2024/11/23	Profiling and performance analysis of C++ programs.	2lab 2luc
11	2024/11/30	Code optimization techniques for object- oriented programming.	2lab 2luc
12	2024/12/7	Collaborative programming exercise utilizing version control systems.	2lab 2luc
13	2024/12/14	Implementing advanced data structures using object-oriented techniques	2lab 2luc
14	2024/12/21	Project work and application development using object-oriented concepts.	2lab 2luc

15	2024/12/28	review and practice exercises, Preparatory for Final Exam.	2lab 2luc
16	2025/1/4	Final Exam (No lab session).	2lab 2luc

Lecturer signature

**Head of Department Signature**