



Ministry of Higher Education and Scientific Research
Lebanese French University – Erbil
College of Engineering and Computer Science
Department of Information Technology



Advance Programming Language

Second Year – First Semester

Asst. Prof. Ashish Sharma

Academic Year: 2023-2024

Course Book



S. No.	Information	Details
1.	Course Name	Advance Programming Language (with C++)
2.	Course Code	IT201APL
3.	Lecturer In-charge	Ashish Sharma
4.	College/Department	ECS/Information Technology
5.	Contact Information	E-mail: ashish.sharma@lfu.edu.krd Mobile No.: 0964-7507231261
6.	Time (in hours) per Week	Theory: 02 Hours Practical: 02 Hours
7.	Office Hours	Saturday to Wednesday
8.	Teacher's Academic Profile	<p>Master of Technology in Computer Science (CS) Degree passed in year 2012 from Jamia Hamdard University Campus, New Delhi, India with 08.09 CGPA. (Division: First)</p> <p>Master of Computer Applications passed in the year 2007 from MIET, Meerut, UP, India is affiliated to UP Technical University Lucknow, India. (Division: First)</p> <p>Bachelor of Science passed in the year 2003 from NAS PG Degree College, Meerut, UP, India affiliated to C.C.S. University, Meerut, UP, India with (Mathematics, Optical Instrumentation and Physics). (Division: Second)</p> <p>To enhance my knowledge, I have attended many seminars and conferences on technically good research topics during my whole career and study yet. Also I work on, to minimize the gap technically of our society from technological aspects and physical aspects.</p>
9.	Academic Title	Assistant Professor
10.	Keywords	Program Architecture, C++ Program Structure, OOPs Implementation
11.	Course Overview: <ul style="list-style-type: none"> This course is designed to impart knowledge on the object-oriented concepts and implementation using C++ with examples and applications. Get an idea of Class and objects. Overload several operators, functions and constructors. Inherit the properties from the base class. 	



12.	<p>Aims & Objective: The students are:</p> <ul style="list-style-type: none"> • Able to design program for any application using classes and objects. • Able to construct program using operator overloading and functions using constructors for any requirement • Able to decompose different classes and use parent class properties in another class, it saves programmer’s effort also line of code. • Able to design applications using data storage for long time in the form of files. There are many different types of files as per requirement.
13.	<p>Course Requirement:</p> <ul style="list-style-type: none"> • All students should attend lectures carefully. Lecture delivery may be On-line or Off-line. • All students should attend on Classroom Tests, Discussions, their Assignments, and Examinations such as Mid-term and Final.
14.	<p>Teaching and Learning Method:</p> <ul style="list-style-type: none"> • Online Video Lectures • E-learning Methods • White Board • PPT Presentation • Team Work • Project Show (Practical Session) • Assignments
15.	<p>Assessment Scheme:</p> <ul style="list-style-type: none"> • 5 % Assignments • 10 % Class Tests and Quizzes • 25 % Mid-term Examination • 60 % Final Examination
16.	<p>Students Learning Outcome:</p> <ul style="list-style-type: none"> • Able to think about how to plan for programming to develop a new program or modify an existing program. • Able to know about how to analyze, design and develop an appropriate program. • Able to know about how to use syntactical and logical techniques for developing a program. • Able to know about how to work on software modules development. • Able to know about how to develop a proper documentary of a system for further use or study.
17.	<p>Course Reading List and References</p> <ul style="list-style-type: none"> • Book: Herbert Schildt- C++ The complete Reference- Tata McGraw Hill, Third Edition.- 2001 • Book: E Balagurusamy- Object Oriented Programming C++- Tata McGraw Hill
18.	<p>Course Content</p>



Course Content

Week	Lecture Date	No. of Hours	Topics
1.	11-09-22 15-09-22	3	Introduction about C++ Programming Language
2.	18-09-22 22-09-22	3	Some important basic terms of C++ Programming: Identifiers, Constant, Preprocessor Directives, Variables, Keywords, Statements, Comments
3.	25-09-22 29-09-22	3	Operators, Data-types, User-defined Datatypes
4.	02-10-22 06-10-22	3	Comma Operator, Jump Statement-I
5.	09-10-22 13-10-22	3	Jump Statement-II
6.	16-10-22 20-10-22	3	Selection Statement
7.	23-10-22 27-10-22	3	C++ Functions-I
8.	30-10-22 03-11-22	3	C++ Functions-II
9.	06-11-22 10-11-22	3	MIDTERM
10.	13-11-22 17-11-22	3	Inline Function, Recursion, Difference between Recursion and Iteration in C++
11.	20-11-22 24-11-22	3	Arrays-I
12.	27-11-22 01-12-22	3	Arrays-II
13.	04-12-22 08-12-22	3	Strings, Types of Strings, The String Class in C++
14.	11-12-22 15-12-22	3	Namespace in C++
15.	18-12-22 22-12-22		Final Examination



19.	<p>Examinations:</p> <ul style="list-style-type: none">• Compositional: In this type of exam, the questions usually start with explain (How...? / What ...? /Why...?) With their typical answers. (Example should be provided)• True or False: In this type of exam, a short sentence about a specific subject will be comment on the trueness or falseness of this particular sentence. (Example should be provided)• Multiple Choices: In this type of exam there will be a number of phrases next or below a statement, students will match the correct phrase. (Example should be provided).• Fill blanks: The description may be given and ask.• Matching: A number of questions in one side and their answers in another side will be presented. It will ask the students to match the questions with correct answers.
20.	Notes: