

COURSE PLAN

FIRST: BASIC INFORMATION

College

College : Karak College
 Department : Engineering Department

Course

Course Title : Programming Language II
 Course Code : 020406132
 Credit Hours : 3 (1 Theoretical, 2 Practical)
 Prerequisite : 020406131

Instructor

Name :
 Office No. :
 Tel (Ext) :
 E-mail :
 Office Hours :

Class Times	Sunday	Monday	Tuesday	Wednesday	Thursday
	Building	Day	Start Time	End Time	Room No.

Textbook

- Programming Language II, Al-Balqa Applied University & KOICA, 2022

References

- Stephen Kochan, "Programming in C," 4th Ed., Addison-Wesley, 2014
- Greg Perry and Dean Miller, "C Programming Absolute Beginner's Guide," 3rd Ed., Que Publishing, 2013
- Jeff Szuhay, "Learn C Programming," Packt Publishing, 2020
- Johan Sannemo, "Principles of Algorithmic Problem Solving", 2018

SECOND: PROFESSIONAL INFORMATION

COURSE DESCRIPTION

This course expands the ability of using C language to design and implement software for electronic devices and systems. Especially it discovers how to meet the requirements given with the advanced techniques of C language.

COURSE OBJECTIVES

The objectives of this course are to enable the student to do the following:

- **Explain**, and employ various C-programming tools in code developing.
- Develop, test, and debug simple codes using C programming language.
- Design and implement algorithms for solving given problems.
- **Explain** the basic concept of OOP.

COURSE LEARNING OUTCOMES

By the end of this course the students should be able to:

- CLO1. **Explain** the basics of function
- CLO2. Use functions to execute top-down programming
- CLO3. Use arrays with functions
- CLO4. **Explain** the difference between structures and unions.
- CLO5. Use the structure and unions in coding
- CLO6. Define a simple pointer
- CLO7. Use pointers with structures
- CLO8. Use pointers with arrays and functions
- CLO9. Manipulate bits with operators
- CLO10. **Explain** and use the operations associated with file handling in C
- CLO11. **Explain** the basic concept of Object Oriented Programming

COURSE SYLLABUS

week	Topic	Topic details	Related OL	Proposal Assignments
1	Functions	<ul style="list-style-type: none"> • Defining a Function • Arguments and Local Variables. • Function Prototype Declaration. 	CLO1	
2	Functions	<ul style="list-style-type: none"> • Automatic Local Variables. • Returning Function Results • Functions Calling. 	CLO1	
3	Functions	<ul style="list-style-type: none"> • Declaring return types and argument types. • Checking Function Arguments • Top-Down Programming 	CLO2	
4	Functions	<ul style="list-style-type: none"> • Functions and Arrays. • Arguments and arrays • Sorting Arrays 	CLO3	
5	Structure and unions	<ul style="list-style-type: none"> • The Basics of Structures. • A Structure for Storing the Date • Initializing Structures • Manipulating structures 	CLO4	
6	Structure and unions	<ul style="list-style-type: none"> • Functions and Structures • Arrays of Structures. • Structures Containing Structures. 	CLO5	
7	Structure and unions	<ul style="list-style-type: none"> • Structures Containing Arrays. • Structure Variants. • Unions 	CLO6	
8		Midterm Exam		
9	Pointers	<ul style="list-style-type: none"> • Pointers and Indirection. • Defining a Pointer Variable. • Initializing a pointer variable 	CLO6	

week	Topic	Topic details	Related OL	Proposal Assignments
10	Pointers	<ul style="list-style-type: none"> Using Pointers in Expressions. Working with Pointers and Structures Structures containing pointers. 	CLO7	
11	Pointers	<ul style="list-style-type: none"> Pointers and Functions. Pointers and Arrays Linked List. 	CLO8	
12	Operations on Bits	<ul style="list-style-type: none"> Memory manipulation. Bitwise Operators. Bitwise operators and arithmetic operators 	CLO9	
13	File handling	<ul style="list-style-type: none"> Open and saving a file. Using sequential files. Using random files. 	CLO10	
14	Source File Handling (Project Management)	<ul style="list-style-type: none"> Dividing a Program into Multiple Files Communication Between Modules Other utilities for working with a larger programs 	CLO10	
15	Introduction to Object Oriented Programming	<ul style="list-style-type: none"> Object Oriented Programming C and C++ programming language Class Other programming languages 	CLO11	
16		Final Exam	Final Exam	

COURSE LEARNING RESOURCES

Teaching will be achieved using available resources including lectures, data show, and materials uploaded on the e-learning system.

ONLINE RESOURCES

<https://ncert.nic.in/textbook/pdf/kecs104.pdf>
Any web site or tutorial that offers information about Automatic control systems analysis and design.

ASSESSMENT TOOLS

	Assessment Tools	%	
	Projects and Quizzes	20%	
	MID Exam	30%	
	Final Exam	50%	
	Total Marks	100%	

THIRD: COURSE RULES

ATTENDANCE RULES

Attendance and participation are extremely important, and the usual University rules will apply. Attendance will be recorded for each class. Absence of 10% will result in a first written warning. Absence of 15% of the course will result in a second warning. Absence of 20% or more will result in forfeiting the course and the student will not be permitted to attend the final examination. Should a student encounter any special circumstances (i.e. medical or personal), he/she is encouraged to discuss this with the instructor and written proof will be required to delete any absences from his/her attendance records.

GRADING SYSTEM

Grade	points
FAILED	0-49
PASSED	50-100

REMARKS

- Copying assignments, quizzes, or exams from another student will not be tolerated.
- Helping other students to cheat in any way or form will not be tolerated.
- Excellent attendance is expected.
- BAU policy requires the faculty member to assign ZERO grade (F) if a student misses 20% of the classes without a valid excuse.
- If student miss a class, it is his responsibility to find out about any announcements or assignments he/she may have missed.
- Participation in, and contribution to class discussions will affect the final grade positively.
- Making any kind of disruption (side talks or mobile ringing) in the class is not allowed and it will affect student negatively.
- Makeup exam should not be given unless there is a valid excuse according to BAU policies.

COURSE COORDINATOR**Course Coordinator:****Signature:****Date:****Department Head:****Signature:**

Dr. Nasr Gharaibeh