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Maharashtra State Board of Technical Education, Mumbai

TEACHING PLAN (TP)

Institute Name: 0078-K. K. Wagh Polytechnic, Nashik
Academic Year: **2025-26 (EVEN)**
Programme: Information Technology (IF) **Course:** Programing in C (PIC) **Course Code:** 312303
Scheme: K
Semester: Second
CLASS: FYIF (CRAY) **Name of Faculty:** Ms. M S Karande

COURSE LEVEL LEARNING OUTCOMES (COS)

- CO1 - Develop C program using input - output functions and arithmetic expressions
- CO2 - Develop C program involving branching and looping statements
- CO3 - Implement Arrays and structures using C programs
- CO4 - Develop C program using user-defined functions
- CO5 - Write C program using pointer

TEACHING-LEARNING & ASSESSMENT SCHEME

Course Code	Course Title	Abbr	Course Category	Learning Scheme					Credits	Paper Duration	Assessment Scheme										
				Actual Contact Hrs./Week			SLH	NLH			Theory				Based on LL & TSL Practical				Based on SL		Total Marks
											FA-TH	SA-TH	Total		FA-PR		SA-PR		SLA		
				CL	TL	LL					Max	Max	Max	Min	Max	Min	Max	Min	Max	Min	
312303	Programming in C	PIC	AEC	4	1	4	1	10	5	3	30	70	100	40	50	20	50#	20	25	10	225

Total IKS Hrs. for Sem.: 0 Hrs.

Abbreviations: CL- Classroom Learning , TL- Tutorial Learning, LL-Laboratory Learning, SLH-Self Learning Hours, NLH-Notional Learning Hours, FA -Formative Assessment, SA -Summative assessment, IKS - Indian Knowledge System, SLA - Self Learning Assessment Legends: @ Internal Assessment, # External Assessment, *# On Line Examination , @$ Internal Online Examination

SUGGESTED COS - POS MATRIX FORM

Course Outcomes (COs)	Programme Outcomes (POs)							Programme Specific Outcomes (PSOs)	
	PO-1 Basic and Discipline Specific Knowledge	PO-2 Problem Analysis	PO-3 Design/ Development of Solutions	PO-4 Engineering Tools	PO-5 Engineering Practices for Society, Sustainability and Environment	PO-6 Project Management	PO-7 Life Long Learning	PSO- 1	PSO- 2
CO1	3	2	2	-	1	-	-	1	2
CO2	2	3	3	2	2	-	-	2	2
CO3	2	3	3	2	3	-	2	2	2
CO4	1	3	3	2	3	1	2	1	1
CO5	1	3	3	2	3	1	1	2	2

Legends: - High:03, Medium:02, Low:01, No Mapping: -
*PSOs are to be formulated at institute level

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Unit No. (Allocated Hrs.)	CO	TLO aligned to COs	Title/ Details	Plan (No. of Lectures)		Actual Execution (From-To & No. of Lectures)		Pedagogy used (Teaching method /Media	Remarks
				From	To	From	To		
01 (10)	CO1		**Unit - I Basics of 'C' Programming**					Chalk, Board, PPT+ LCD Videos, Google Classroom, MKCL ERA	
				02 Lectures					
		TLO 1.1	** Basic General Concepts of Programming 1.1 Fundamentals of algorithms	15/12/25	16/12/25				
		TLO 1.2, TLO 1.3	1.2 Introduction to 'C': General structure of 'C' program 1.3 Fundamental constructs of 'C'	03 Lectures					
				17/12/25	22/12/25				
		TLO 1.4	1.4 Basic Input and Output functions	02 Lectures					
				23/12/25	24/12/25				
		TLO 1.5	1.5 Assignments and expressions	03 Lectures					
				26/12/25	30/12/25				
02 (14)	CO2		**Unit - II Control structures**					Chalk, Board, PPT Videos, MKCL ERA	
				05 Lectures					
		TLO 2.1	2.1 Conditional statements	31/12/25	07/01/26				
		TLO 2.2	2.2 Looping statements	05 Lectures					
				08/01/26	14/01/26				
		TLO 2.3	2.3 Branching Statements	04 Lectures					
				16/01/26	21/01/26				

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03 (12)	CO3		**Unit - III Arrays and structure**					Chalk, Board, PPT, MKCL ERA	
		TLO 3.1, TLO 3.2	3.1 Characteristics of an array, One dimension and two dimensional arrays, concept of multi-dimensional arrays.	03 Lectures					
				23/01/26	29/01/26				
			3.2 Array declaration and Initialization. 3.3 Operations on Arrays.	03 Lectures					
				30/01/26	03/02/26				
			3.4 Character and String input/output and String related operations.	02 Lectures					
				04/02/26	06/02/26				
		TLO 3.3 TLO 3.4	3.5 Introduction and Features of Structures, Declaration and Initialization of Structures, array of structures. 3.6 Type def, Enumerated Data Type.	04 Lectures					
				09/02/26	13/02/26				
04 (12)	CO4		**Unit - IV Functions**					Chalk, Board, PPT Videos, MKCL ERA	
				02 Lectures					
		TLO 4.1	4.1 Concept and need of functions.	16/02/26	17/02/26				
		TLO 4.2	4.2 Library functions	03 Lectures					
				18/02/26	23/02/26				
		TLO 4.3	4.3 Writing User defined functions	03 Lectures					
				24/02/26	27/02/26				
		TLO 4.4	4.4 Function parameters Parameter passing- call by value & call by reference, function return values, function return types ,declaring function return types, The 'return' statement	02 Lectures					
				02/03/26	04/03/26				
		TLO 4.5	4.5 Recursive functions.	02 Lectures					
				06/03/26	09/03/26				

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05 (12)	CO5		**Unit - V Pointers**					Chalk, Board, PPT Videos, MKCL ERA	
				02 Lectures					
		TLO 5.1 TLO 5.2	5.1 Introduction to Pointers	10/03/26	11/03/26				
		TLO 5.3	5.2 Pointer arithmetic	02 Lectures					
				13/03/26	16/03/26				
		TLO 5.4	5.3 Pointer to array.	02 Lectures					
				17/03/26	18/03/26				
		TLO 5.5	5.4 Pointer and Text string. 5.5 Function handling using pointers.	03 Lectures					
				20/03/26	24/03/26				
		TLO 5.6	5.6 Pointers to structure.	03 Lectures					
				25/03/26	30/03/26				

ASSESSMENT METHODOLOGIES/TOOLS

A. Formative assessment (Assessment for Learning) (FA-TH)

Continuous assessment based on process and product related performance indicators. Each practical will be assessed considering 60% weightage is to process &40% weightage to product

B. Summative Assessment (Assessment of Learning) (SA-TH)

End semester Examination, Lab performance, Viva-Voce

SUGGESTED LEARNING MATERIALS / BOOKS

Sr. No	Author	Title	Publisher
1	E.Balaguruswamy	Programming in ANSI 'C'	Mcgraw Hill Publications ISBN 0070534772
2	Yashwant Kanetkar	Let us 'C'	BPB Publication ISBN 9788183331630
3	David Griffiths, Dawn Griffiths	Head First C	O'Reilly Media, Inc. ISBN: 9781449345013

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LEARNING WEBSITES & PORTALS

Sr. No	Link /Portal	Description
1	https://nptel.ac.in/courses/106104128	C Programming
2	https://jsommers.github.io/cbook/control.html	Control structures, flow control statements in C
3	https://www.learn-c.org/en/Functions	Functions

Ms. M. S. Karande
(Name of Faculty)

Ms. M. S. Karande
HOD-IF