

Maharashtra State Board of Technical Education, Mumbai

TEACHING PLAN (TP)

Academic Year: 2025-26 (EVEN)

Institute Code and Name: 0078- K K Wagh Polytechnic, Nashik

Programme and Code: Information Technology (IF)

Course and Code: Programming In C (PIC)

Scheme: K Allocated Hrs. 60 Name of Faculty: Mr. S. S. Dhoot

Semester: Second

Course Index: 203

Course Code: 312303

Class: FYIF (Param)

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 | | | | | | | | | | Total Marks |
|-------------|------------------|------|-----------------|-------------------------|----|----|-----|-----|---------|----------------|-------------------|---------------|-------|-----|-----------------------------|-----|-------|-----|-------------|-----|-------------|
| | | | | Actual Contact Hrs/Week | | | SLH | NLH | | | Theory | | | | Based on LL & TSL Practical | | | | Based on SL | | |
| | | | | CL | TL | LL | | | | | FA · TH | SA · TH | Total | | FA-PR | | SA-PR | | SLA | | |
| | | | | | | | | | | | | | Max | Max | 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 | 1 |
| CO2 | 2 | 3 | 3 | 2 | - | - | 2 | 2 | 1 |
| CO3 | 2 | 3 | 3 | 3 | - | 2 | 2 | 2 | 2 |
| CO4 | 1 | 3 | 3 | 3 | 1 | 2 | 3 | 2 | 1 |
| CO5 | 1 | 3 | 3 | 3 | 1 | 1 | 3 | 2 | 1 |

Legends :- High:03, Medium:02,Low:01, No Mapping: -

*PSOs are formulated at institute level

Maharashtra State Board of Technical Education, Mumbai

TEACHING PLAN (TP)

Academic Year: 2025-26 (EVEN)

Institute Code and Name: 0078- K K Wagh Polytechnic, Nashik

Programme and Code: Information Technology (IF)

Course and Code: Programming In C (PIC)

Scheme: K Allocated Hrs. 60 Name of Faculty: Mr. S. S. Dhoot

Semester: Second

Course Index: 203

Course Code: 312303

Class: FYIF (Param)

| Unit No. (Allocated Hrs.) | CO | TLO aligned to CO's | Title/Details | Plan (No. of Lectures) | | Actual Executio | | Pedagogy Used | Remark |
|---------------------------------|----------|---------------------------|---|---------------------------|----------|-----------------|----|-------------------------|--------|
| | | | | From | To | From | To | | |
| 1 (10) | 1 | 1.1 1.2 | Fundamentals of Algorithms Structure of C Program | 02 | | | | PPT, ERA,AI Tools | |
| | | | | 15/12/25 | 17/12/25 | | | | |
| | | 1.3 | Fundamental Construct of C | 02 | | | | | |
| | | | | 18/12/25 | 19/12/25 | | | | |
| | | 1.4 | Basic Input / Output Functions | 02 | | | | | |
| | | | | 20/12/25 | 24/12/25 | | | | |
| | | 1.5 | Assignment and Expressions | 04 | | | | | |
| 26/12/25 | 31/12/25 | | | | | | | | |
| 2 (14) | 2 | 2.1 | Conditional Statements | 6 | | | | PPT, ERA,AI Tools | |
| | | | | 1/1/26 | 8/1/26 | | | | |
| | | 2.2 | Looping Statements | 6 | | | | | |
| | | | | 9/1/26 | 16/1/26 | | | | |
| | | 2.3 | Branching Statements | 2 | | | | | |
| | | | | 17/1/26 | 19/1/26 | | | | |
| 3 (12) | 3 | 3.1 | Array Types and Characteristics | 2 | | | | PPT, ERA,AI Tools | |
| | | | | 21/1/26 | 22/1/26 | | | | |
| | | 3.2 | Array Declaration and Initialization | 2 | | | | | |
| | | | | 23/1/26 | 24/1/26 | | | | |
| | | 3.3 | Operations on Array | 2 | | | | | |
| | | | | 30/1/26 | 31/1/26 | | | | |
| | | 3.4 | Character and String Functions | 2 | | | | | |
| | | | | 2/2/26 | 4/2/26 | | | | |
| | | 3.5 3.6 | Structure Declaration, Array of Structure Type Def, Enumerated Type | 4 | | | | | |
| | | | | 5/2/26 | 7/2/26 | | | | |
| 4 (12) | 4 | 4.1 | Concept and Need Of Function | 2 | | | | PPT, ERA,AI Tools | |
| | | | | 11/2/26 | 12/2/26 | | | | |
| | | 4.2 | Library Function | 2 | | | | | |
| | | | | 13/2/26 | 14/2/26 | | | | |
| | | 4.3 | User Defined Function | 3 | | | | | |
| | | | | 16/2/26 | 20/2/26 | | | | |
| | | 4.4 4.5 | Function Parameters Recursive Function | 5 | | | | | |
| | | | | 21/2/26 | 28/2/26 | | | | |

Maharashtra State Board of Technical Education, Mumbai

TEACHING PLAN (TP)

Academic Year: 2025-26 (EVEN)

Institute Code and Name: 0078- K K Wagh Polytechnic, Nashik

Programme and Code: Information Technology (IF)

Course and Code: Programming In C (PIC)

Scheme: K Allocated Hrs. 60

Name of Faculty: Mr. S. S. Dhoot

Semester: Second

Course Index: 203

Course Code: 312303

Class: FYIF (Param)

| Unit No. (Allocated Hrs.) | CO | TLO aligned to CO's | Title/Details | Plan (No. of Lectures) Actual Execution | | Actual Execution | | Pedagogy Used | Remark |
|------------------------------|----|---------------------|----------------------------------|---|---------|------------------|----|-------------------|--------|
| | | | | From | To | From | To | | |
| 5 (12) | 5 | 5.1 | Introduction to Pointers | 2 | | | | PPT, ERA,AI Tools | |
| | | | | 2/3/26 | 4/3/26 | | | | |
| | | 5.2 | Pointer Arithmetic | 2 | | | | | |
| | | | | 5/3/26 | 6/3/26 | | | | |
| | | 5.3 | Pointer to Array | 2 | | | | | |
| | | | | 7/3/26 | 11/3/26 | | | | |
| | | 5.4 | Pointer and String | 2 | | | | | |
| | | | | 12/3/26 | 14/3/26 | | | | |
| | | 5.5 | Function handling using Pointers | 2 | | | | | |
| | | | | 16/3/26 | 20/3/26 | | | | |
| | | 5.6 | Pointers to Structures | 2 | | | | | |
| | | | | 23/3/26 | 27/3/26 | | | | |

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

C. Suggested micro project / assignment/ activities for specific learning / skills development (self-learning)

1. Complete any one course related to Programming in C on Infosys Springboard
2. Develop C language code for relevant topics suggested by the teacher

SUGGESTED LEARNING MATERIALS / BOOKS

| Sr. No | Author | Title | Publisher with ISBN Number |
|--------|---------------------------------|-------------------------|--|
| 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 |

Maharashtra State Board of Technical Education, Mumbai
TEACHING PLAN (TP)

Academic Year: 2025-26 (EVEN)

Institute Code and Name: 0078- K K Wagh Polytechnic, Nashik

Programme and Code: Information Technology (IF)

Course and Code: Programming In C (PIC)

Scheme: K Allocated Hrs. 60

Name of Faculty: Mr. S. S. Dhoot

Semester: Second

Course Index: 203

Course Code: 312303

Class: FYIF (Param)

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 |
| 4 | https://www.simplilearn.com/tutorials/c-tutorial/pointers-in | Pointers |
| 5 | https://www.w3schools.com/c/ | C Programming |
| 6 | https://www.javatpoint.com/c-programming-language-tutorial | C Programming tutorial |
| 7 | https://www.programiz.com/c-programming | C Programming |
| 8 | https://www.programiz.com/c-programming/online-compiler/ | online C compiler |

Mr. S. S. Dhoot
Name & Signature of Faculty

Ms. M. S. Karande
Name & Signature of HOD