Lesson Plan

**Name of the Faculty** : Dalvir Singh

[**Discipline :**](about:blank) **Electronics & Communication Engg.**

[**Semester :**](about:blank) **3rd**

**Subject : Programming in C (PIC)**

| **Week** | **Theory** | | **Practical** | |
| --- | --- | --- | --- | --- |
| **Day** | **Topic (including assignment / test)** | **Day** | **Topic** |
| **1st** | **1** | Steps in development of a program, | **1** | Program on executing and editing a C program. |
| **2** | Flow charts, Algorithm development |
| **2** | Program on defining variables and assigning values to variables. |
| **3** | Programme Debugging, I/O statements,  Constants, variables |
| **2nd** | **4** | data types, Operators & Expressions, | **3** | Program on arithmetic and relational operators. |
| **5** | Unformatted and Formatted IOS, Data Type Casting |
| **4** | Hands on Practice |
| **6** | Decision making with IF – statement, IF –  Else and Nested IF |
| **3rd** | **7** | While and do-while loop | **5** | Program on arithmetic expressions and their evaluation. |
| **8** | for loop, Break, Continue statements |
| **6** | Program on formatting input/output using printf and scanf and their  return type values. |
| **9** | goto and switch statements |
| **4th** | **10** | Introduction to pointers, Address operator  and pointers | **7** | Hands on Practice |
| **11** | Declaring and initializing pointers, Single pointer, |
| **8** | Program using if statement. |
| **12** | Introduction to functions |
| **5th** | **13** | Function Declaration, calling, definition | **9** | Program using if – Else. |
| **14** | Parameter Passing, Call - by value/reference, |
| **10** | Program on switch statement. |
| **15** | Global and Local Variables |
| **6th** | **16** | Revision | **11** | Hands on Practice |
| **17** | Revision |
| **12** | Hands on Practice |
| **18** | Sessional 1 |
| **7th** | **19** | Introduction to Arrays, Array Declaration,  Length of array | **13** | Program on do-while loop |
| **20** | Single dimensional array |
| **14** | Program on for loop |

|  | **21** | muti dimensional array |  |  |
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| **8th** | **22** | Arrays of characters | **15** | Simple program using pointers. |
| **23** | Introduction of Strings, String declaration and definition |
| **16** | Program on one-dimensional array. |
| **24** | String related function i.e. strlen, strcpy,  strcmp |
| **9th** | **25** | Passing an array to function | **17** | Hands on Practice |
| **26** | Pointers to an array and strings. |
| **18** | Program on two-dimensional array. |
| **27** | Declaration of structures, Accessing  structure members |
| **10th** | **28** | Revision | **19** | Hands on Practice |
| **29** | Revision |
| **20** | Hands on Practice |
| **30** | Sessional 2 |
| **11th** | **31** | Structure Initialization | **21** | Program for putting two strings together. |
| **32** | Pointer to a structures, |
| **22** | Program for comparing two strings. |
| **33** | Unions |
| **12th** | **34** | Class Test | **23** | Simple program using functions |
| **35** | Opening of File |
| **24** | Hands on Practice |
| **36** | Closing of File |
| **13th** | **37** | Modes of Accessing Files | **25** | Simple program using structures. |
| **38** | Reading the File |
| **26** | Hands on Practice |
| **39** | Writing in the File |
| **14th** | **40** | Class test | **27** | Simple program using union. |
| **41** | Revision of Unit 1 |
| **28** | Program on Reading and Writing data to a file. |
| **42** | Revision of Unit 2 |
| **15th** | **43** | Revision of Unit 3 | **29** | Hands on Practice |
| **44** | Revision of Unit 4 |
| **30** | Hands on Practice |
| **45** | Sessional 3 |