# Procedure Oriented Programming using C.

**Semester II** **Subject Code: BC21501** **Lectures: 48**

| **Objectives:** |
|---|
| The syllabus aims in equipping students with<br><br>• The basic concepts of computer programming and developer tools.<br>• Syntax and semantics of the "C" language as well as data types offered by the language.<br>• An ability to write their own programs using standard language infrastructure regardless of the hardware or software platform. |

| **Unit 1: Array** | **8** Lects. |
|---|---|
| • Introduction to Array | **1** |
| • Types of Array (One-dimensional Array , two-dimensional Array) Definition, Declaration, Initialization. | 4 |
| • Accessing and displaying array elements | 1 |
| • Arrays and functions | 2 |

| Name | Sign |
|---|---|
| Prof. Gautam Kudale | |
| Prof. Mahesh Pawar | |
| Mr.Suraj Agarwal | |
| Ms. Netra Jadhav | |
| Mrs.Smita Borkar | |
| Mrs.Divya Chitre | |
| Mrs.Monika Rajguru | |
| Ms.Deepali Agarwal | |
| Mrs. Shubhangi Jagtap | |

ST. MIRA'S COLLEGE FOR GIRLS * POONA-411001 *

| **Unit 2: Introduction to Pointer** | **10 Lects.** |
|---|---|
| • Introduction to pointer<br>Definition, Declaration ,Initialization,<br>• Indirection operator and address of operator<br>• Pointer arithmetic<br>• Dynamic memory allocation<br>• Functions and pointers<br>• Array and pointers | 2<br>1<br>1<br>3<br>2<br>1 |

| **Unit 3: String** | **8** Lects. |
|---|---|
| • Introductions to Strings<br>Definition, Declaration, Initialization.<br>• String handling using standard library functions<br>• String handling using user defined functions | 1<br>3<br>4 |

| Name | Sign |
|---|---|
| Prof. Gautam Kudale | |
| Prof. Mahesh Pawar | |
| Mr.Suraj Agarwal | |
| Ms. Netra Jadhav | |
| Mrs.Smita Borkar | |
| Mrs.Divya Chitre | |
| Mrs.Monika Rajguru | |
| Ms.Deepali Agarwal | |
| Mrs. Shubhangi Jagtap | |

ST. MIRA'S COLLEGE FOR GIRLS * POONA-411001 *

| **Unit 4: Structures and union** | **8** Lects. |
|---|---|
| • Introduction to structure<br>Definition ,Declaration<br>• Accessing members<br>• Array of structures<br>• Nested structure<br>• Introduction to union<br>Definition , Declaration<br>• Differentiate between structure and union | **1**<br><br>1<br>2<br>2<br>1<br><br>1 |

| **Unit 5: C Preprocessor** | **4** Lects. |
|---|---|
| • Definition of preprocessor<br>• Types of preprocessor<br>File Inclusion<br>Macro | 1<br>3 |

| Name | Sign |
|---|---|
| Prof. Gautam Kudale | |
| Prof. Mahesh Pawar | |
| Mr.Suraj Agarwal | |
| Ms. Netra Jadhav | |
| Mrs.Smita Borkar | |
| Mrs.Divya Chitre | |
| Mrs.Monika Rajguru | |
| Ms.Deepali Agarwal | |
| Mrs. Shubhangi Jagtap | |

ST. MIRA'S COLLEGE FOR GIRLS * POONA-411001 *

| **Unit 6: File handling** | **10** Lects. |
|---|---|
| • Definitions of files<br>• File opening modes<br>• Standard functions with example<br>• Random access to files<br>• Command line argument with example | **1**<br>1<br>3<br>2<br>3 |

| **Reference Books:** |
|---|
| • *Let us C* –Yashwant Kanetkar, BPB publication 10 th edition 2010.<br>• *Programming in ANSI C* - Balguruswamy, Tata McGraw-Hill publication 3 rd edition 2004.<br>• *Understanding Pointers in C* - Yashwant Kanetkar, BPB publication 2002.<br>• *The Complete Reference C* – Herbert Schildt, Tata McGraw-Hill publication 3 rd edition 2008. |

| Name | Sign |
|---|---|
| Prof. Gautam Kudale | |
| Prof. Mahesh Pawar | |
| Mr.Suraj Agarwal | |
| Ms. Netra Jadhav | |
| Mrs.Smita Borkar | |
| Mrs.Divya Chitre | |
| Mrs.Monika Rajguru | |
| Ms.Deepali Agarwal | |
| Mrs. Shubhangi Jagtap | |