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| **Unit** | **Topic & sub – topic** | **Topics Covered(Y/N)** | **COs** | **Lectures proposed** | **Lecture delivered** | **Date** | **No. of students present**  **(55)** | **Sign. of faculty** |
| **1** | **Array & Function** |  |  |  |  |  |  |  |
| Introduction ( one and multi dimensional) | Y | CO1 | 1 |  |  |  |  |
| Declaration of Array, Initialization of arrays | Y | CO1 | 1 |  |  |  |  |
| processing with arrays | Y | CO1 | 1 |  |  |  |  |
| . String manipulation, declaration of string arrays, string operations | Y | CO1 | 1 |  |  |  |  |
| . Functions: Introduction, advantages of functions, Function definition, function call, Actual and formal arguments | Y | CO1 | 2 |  |  |  |  |
| , local and global variables, function prototypes, types of functions, recursive functions, arrays and functions | Y | CO1 | 2 |  |  |  |  |
| **Total Lectures** | | | **8** |  |  |  |  |
| **2** | **Searching and Sorting:** |  |  |  |  |  |  |  |
| Selection sort, bubble sort, | Y | CO2 | 2 |  |  |  |  |
| insertion sort, | Y | CO2 | 1 |  |  |  |  |
| quick sort,. | Y | CO2 | 2 |  |  |  |  |
| merge sort, | Y | CO2 | 1 |  |  |  |  |
| Searching: linear and binary search methods, | Y | CO2 | 1 |  |  |  |  |
| comparison of sorting and searching methods | Y | CO2 | 1 |  |  |  |  |
| **Total Lectures** | | | **8** |  |  |  |  |
| **3** | **Structures and Pointers:** |  |  |  |  |  |  |  |
| Introduction to structures, Advantages of structures. | Y | CO3 | 1 |  |  |  |  |
| , accessing elements of a structure. | Y | CO3 | 1 |  |  |  |  |
| nested structures, array of structures, functions and structures, | Y | CO3 | 2 |  |  |  |  |
| Pointers: Introduction, pointer variable, | Y | CO3 | 2 |  |  |  |  |
| pointer operator. pointer arithmetic, pointers and arrays, | Y | CO3 | 1 |  |  |  |  |
| pointersand strings. array pointers, dynamic allocation | Y | CO3 | 1 |  |  |  |  |
| **Total Lectures** | | | **8** |  |  |  |  |
| **4** | **. Files:** |  |  |  |  |  |  |  |
| Preprocessor, standard library and header files: | Y | CO4 | 1 |  |  |  |  |
| File Introduction, File data type. opening and closing a file, | Y | CO4 | 1 |  |  |  |  |
| file functions (getc, putc, getw, putw, fscanf, fprintf, (read, write, fgets, fputs, feof). | Y | CO4 | 2 |  |  |  |  |
| Preprocessor: #define, #include, #undef, Conditional compilation directives, | Y | CO4 | 1 |  |  |  |  |
| C standard library and header files: Header files, |  | CO4 | 1 |  |  |  |  |
| string functions, mathematical functions. Date and Time functions | Y | CO4 | 2 |  |  |  |  |
| **Total Lectures** | | | **8** |  |  |  |  |

**BBS INSTITUTE OF PROFESSIONAL STUDIES**

**Lecture Plan**

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| --- | --- |
| Department | BCA/BBA |
| Program/Year/Semester/Sec | BCA/1st /A |
| Course Name/ Course Title | Principles of Programing Using C-II |
| Course Code | B230202T |
| Name of Faculty | Mr. Lalman |
| Department of Faculty | BCA/BBA |

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| Pre-requisites for the Course | Students should have interest in learning of programming. |
| Student should have basic knowledge of computer |

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| Type of Course | Theory/Lecture |
| Contact hours | 35 hrs |

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| **Course Outcomes (COs)** | |
| At the end of this course students will demonstrate the ability to: | |
| CO1 | Study of the basic understanding of Array in C |
| CO2 | Study of use and implementation of Searching and Sorting |
| CO3 | Developing the concept of Structure and Pointer |
| CO4 | Implementation of File Handling in C |

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| **Text Books & References** | |
| 1 | Programming in C-Balguruswamy |
| 2 | The C programming Larlg , Pearson Eel - Dennis Ritchie |
| 3 | Structured programming approach using C- Forouzan&Ceilber, Thomson learning publication |
| 4 | Let Us C by Yashavant Kanetkar |

Signature of Faculty Signature of HOD

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| **Comments** |  |