

**Sri Krishna Dutt Academy,  
Vrindavan Yojna, Raibareilly Road,  
Lucknow (U.P.)**  
*(An Associated college of University of Lucknow)*

**SYLLABUS FOR  
BASICS OF COMPUTER**

**Time Duration: -30 Hours**

**Objectives :**

- To provide students an understanding of the expectations of industry.
- To improve employability skills of students.
- To bridge the skill gaps and make students industry ready

**Unit : I**

**Basics of Computer:** Block Diagram of Computer; Characteristics of Computer, Classification of Computers, Generation of Computers, Input/Output devices. Memory Hierarchy.

**Operating system:** Definition, purpose, function, services and types. Number system: Binary, octal and hexadecimal number systems, their mutual conversions, Binary arithmetic.

**Basics of Computer Programming Languages:** Concept of algorithm and flow charts,

**Types of computer languages:** Machine Language, Assembly Language and High Level Language, Concept of Assembler, Compiler, Interpreter, Loader and Linker. (10 Hours)

**Unit: II**

**C Language Fundamentals:** Character set, Keywords, Identifiers, Variables: Declaration and Initialization of variables, Scope of variables, Constant, Types of constant, Data type and sizes, Types of operators: Unary and Binary operators, Bit wise operators, Type conversion. Decision Control Statements: if, if-else, Nested if else, else if ladder, Switch statement, Break, Continue statement. Loops: for, while, do-while, Nesting of loops. Structure of C program, Compilation and Execution of C programs. Errors, Types of errors. (10 Hours)

**Unit: III**

**Functions:** Declaration and definition, Function call, Types of function, Parameter passing, call by value, Call by reference, Storage classes, Recursion. (5 Hours)

**Unit: IV**

**Arrays:** Array notation and representation, manipulating array elements, using multi-dimensional arrays. Structure, union, enumerated data types.

**Pointers:** Introduction, declaration, standard C pre-processors, defining and calling macros.

(5 Hours)