

Govt. College, Aharwala (Bilaspur) -Yamuna Nagar Lesson Plan (2022-23) [Odd Semester]

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| Name of Techer | Amit Kapoor |
| Department | Computer Science |
| Class & Section | BCA I Semester |
| Subject and Code | Programming in C, Paper Coe: BCA-116 |
| Semester Duration | 1st September 2022 - 24th December 2022 |

Topics

1st September 2022 - 15th September 2022

Overview of C: History of C, Importance of C, Structure of a C Program. Elements of C: C character set, identifiers and keywords, Data types, Constants and Variables

16th September 2022 - 30th September 2022

Assignment statement, Symbolic constant. Input/output: Unformatted & formatted I/O function in C, Input functions (scanf(), getch(), getche(), getchar(), gets()), Output functions (printf(), putchar(), puts()).

1st October 2022 - 15th October 2022

Operators & Expression: Arithmetic, relational, logical, bitwise, unary, assignment, conditional operators and special operators. Arithmetic expressions, evaluation of arithmetic expression,

16th October 2022 - 31st October 2022

type casting and conversion, operator hierarchy & associativity. Decision making & branching: Decision making with IF statement, IF-ELSE statement, Nested IF statement, ELSE-IF ladder, switch statement, goto statement.

1st November 2022 - 15th November 2022

Decision making & looping: For, while, and do-while loop, jumps in loops,

16th November 2022 - 30th November 2022

break, continue statement. Functions: Definition, prototype, passing parameters, recursion.

1st December 2022 - 15th December 2022

Storage classes in C: auto, extern, register and static storage class, their scope, storage & lifetime. Arrays: Definition, types, initialization,

16th December 2022 - 24th December 2022

processing an array, passing arrays to functions, Strings & arrays.

Note: - The teaching of topics to the students on the duration mentioned above may not be exactly followed and may have little variations/fluctuations because of some unforeseen circumstances. For example: various Functions/Activities organized by the College (Musical Meet, Blood Donation, Important Days Celebrations, Co-Curricular/Extra-curricular Activities etc.), Response of Students in the Class, Request of Students for Repetition of some specific Topics, Practical Examinations, Unpredicted Leaves, Restricted Holidays etc.

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| Name of Techer | Amit Kapoor |
| Department | Computer Science |
| Class & Section | BCA V Semester |
| Subject and Code | Operating System-I, Paper Code: BCA-352 |
| Semester Duration | 1st September 2022 - 24th December 2022 |
| Topics | |
| 1st September 2022 - 15th September 2022 | |
| Operating System: Definition, Characteristics, Components, Functions, Examples; Types of Operating System: Single User/Multi User, Classification of Operating System: Batch, Multiprogrammed, Timesharing, | |
| 16th September 2022 - 30th September 2022 | |
| Multiprocessing, Parallel, Distributed, Real Time; System Calls and System Programs: Process Control, File Manipulation, Device Manipulation, Information Maintenance, Communications | |
| 1st October 2022 - 15th October 2022 | |
| Process Management: Process concept, Process states and Process Control Block; Process Scheduling: Scheduling Queues, Schedulers, Context Switch; Operation on Processes: Process Creation, Process Termination; Cooperating Processes, Introduction to Threads, Inter-process Communication; | |
| 16th October 2022 - 31st October 2022 | |
| CPUScheduling: Basic Concepts, Scheduling Criteria, Scheduling Algorithms: FCFS, SJF, Priority, Round-Robin, Multilevel Queue, Multilevel Feedback Queue Scheduling | |
| 1st November 2022 - 15th November 2022 | |
| Deadlocks: System Model, Deadlock Characterization, Methods of Handling Deadlocks, Deadlock Prevention, Deadlock Avoidance, Deadlock Detection and Recovery | |
| 16th November 2022 - 30th November 2022 | |
| Memory Management: Introduction, Swapping, Contiguous Allocation: Single-Partition/Multiple Partition Allocation, External/Internal Fragmentation; Paging: Basic Method, Hardware, Implementation of Page table; Segmentation: Basic Method, Hardware, Implementation of Segment Table, Advantages/Disadvantages of Paging/Segmentation | |
| 1st December 2022 - 15th December 2022 | |
| Virtual Memory: Introduction, Demand Paging, Page Replacement, Page Replacement Algorithms: FIFO, Optimal, LRU, counting; Thrashing and its cause; | |
| 16th December 2022 - 24th December 2022 | |
| File Management: File Concepts, File Attributes, File Operations, File Types, File Access/Allocation Methods, File Protection, File Recovery | |

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