

OFFICE OF THE PRINCIPAL GOVT. COLLEGE FOR GIRLS, PALWAL (KURUKSHETRA)
LESSON-PLAN (Session 2024-25)

Name of Assistant Professor: Dr. Naveeta Adlakha

Semester : B.Sc.(CS) -Ist Semester

Subject : Problem Solving through C

Paper : Course Code B23-CSE-101

Sr. no	Week	Topics to be covered	Remarks if any
1	22-30 July 2024	Overview of C: History, Importance,	
2	1-8 August 2024	Structure of C Program, Character Set, Constants and Variables,	
3	9-17 August 2024	Identifiers and Keywords, Data Types, Assignment Statement, Symbolic Constant. Input/output	
4	19-24 August 2024	Formatted I/O Function-, Input Functions viz. scanf(), getch(), getche(), getchar(), gets(), output functions viz. printf(), putch(), putchar(), puts().	
5	27-31 August 2024	Operators & Expression: Arithmetic, Relational, Logical, Bitwise, Unary, Assignment, Conditional Operators and Special Operators Operator Hierarchy;	Assignment
6	2-7 September 2024	Arithmetic Expressions, Evaluation of Arithmetic Expression, Type Casting and Conversion. Decision making with if statement, ifelse statement, nested if statement, else-if ladder,	
7	9-14 September 2024	switch and break statement, goto statement, Looping Statements: for, while, and dowhile loop, jumps in loops.	Presentation
8	16-21 September 2024	Arrays: One Dimensional arrays - Declaration, Initialization and Memory representation; Two Dimensional arrays - Declaration, Initialization and Memory representation.	
9	24-30 September 2024	Functions: definition, prototype, function call, passing arguments to a function: call by value; call by reference, recursive functions.	
10	1,4,5,7-12, October 2024	Strings: Declaration and Initialization, String I/O, Array of Strings, String Manipulation Functions: String Length, Copy, Compare, Concatenate etc., Search for a Substring.	
11	14-19 October 2024	Pointers in C: Declaring and initializing pointers, accessing address and value of variables using pointers; Pointers and Arrays.	
12	21-26 October 2024	User defined data types: Structures - Definition, Advantages of Structure, declaring structure variables, accessing structure members, Structure members initialization, Array of Structures;	
13	4-9 November 2024	Union definition; difference between Structure and Union.	Class test
14	11-16 November 2024	Revision	
15	18-22-November 2024	Revision	

***Vacation as per university calendar**

***Assignments and unit test will be taken as per schedule**

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LESSON-PLAN (Session 2024-25)

Name of Assistant Professor: Dr. Naveeta Adlakha

Semester : BCA -Ist Semester

Subject : Problem Solving through C

Paper : B23-CAP-101

Sr. no	Week	Topics to be covered	Remarks if any
1	22-30 July 2024	Overview of C: History, Importance,	
2	1-8 August 2024	Structure of C Program, Character Set, Constants and Variables,	
3	9-17 August 2024	Identifiers and Keywords, Data Types, Assignment Statement, Symbolic Constant. Input/output	
4	19-24 August 2024	Formatted I/O Function-, Input Functions viz. scanf(), getch(), getche(), getchar(), gets(), output functions viz. printf(), putchar(), puts().	
5	27-31 August 2024	Operators & Expression: Arithmetic, Relational, Logical, Bitwise, Unary, Assignment, Conditional Operators and Special Operators Operator Hierarchy;	
6	2-7 September 2024	Arithmetic Expressions, Evaluation of Arithmetic Expression, Type Casting and Conversion. Decision making with if statement, ifelse statement, nested if statement, else-if ladder,	Class test
7	9-14September 2024	switch and break statement, goto statement, Looping Statements: for, while, and dowhile loop, jumps in loops.	
8	16-21 September 2024	Arrays: One Dimensional arrays - Declaration, Initialization and Memory representation; Two Dimensional arrays - Declaration, Initialization and Memory representation.	Assignment
9	24-30September 2024	Functions: definition, prototype, function call, passing arguments to a function: call by value; call by reference, recursive functions.	
10	1,4,5,7-12, October 2024	Strings: Declaration and Initialization, String I/O, Array of Strings, String Manipulation Functions: String Length, Copy, Compare, Concatenate etc., Search for a Substring.	
11	14-19 October 2024	Pointers in C: Declaring and initializing pointers, accessing address and value of variables using pointers; Pointers and Arrays.	
12	21-26 October 2024	User defined data types: Structures - Definition, Advantages of Structure, declaring structure variables, accessing structure members, Structure members initialization, Array of Structures;	
13	4-9 November 2024	Union definition; difference between Structure and Union.	Group Discussion
14	11-16November 2024	Revision	
15	18-22-November 2024	Revision	

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LESSON-PLAN (Session 2024-25)

Name of Assistant Professor: Dr. Naveeta Adlakha

Semester : BCA –IIIrd Semester

Subject : Linux and Shell Programming

Paper : B23-CAP-302

Sr. no	Week	Topics to be covered	Remarks if any
1	22-30 July 2024	Introduction to Linux: Linux distributions, Overview of Linux operating system, Linux architecture,	
2	1-8 August 2024	Features of Linux, Accessing Linux system, Starting and shutting down system, Logging in and Logging out, Comparison of Linux with other operating systems	
3	9-17 August 2024	Commands in Linux: General-Purpose commands, File oriented commands, directory oriented commands,	
4	19-24 August 2024	Communication-oriented commands, process oriented commands, etc.	Class test
5	27-31 August 2024	Regular expressions & Filters in Linux: Simple filters viz. more, wc, diff, sort, uniq, grep; Introducing regular expressions.	
6	2-7 September 2024	Linux file system: Linux files, inodes and structure and file system, file system components	
7	9-14September 2024	standard file system, file system types. Processes in Linux: Starting and Stopping Processes,	Assignment
8	16-21 September 2024	Initialization Processes, Mechanism of process creation,	
9	24-30September 2024	Job control in linux using at, batch, cron & time	
10	1,4,5,7-12, October 2024	Shell Programming: vi editor, shell variables, I/O in shell,	
11	14-19 October 2024	control structures, loops,	
12	21-26 October 2024	subprograms, creating & executing shell scripts in linux.	Group Discussion
13	4-9 November 2024	creating & executing shell scripts in linux continue	
14	11-16November 2024	Revision	
15	18-22-November 2024	Revision	

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LESSON-PLAN (Session 2024-25)

Name of Assistant Professor: Dr. Naveeta Adlakha

Semester : B.Sc. IIIrd Semester

Subject : Operating Systems

Paper : B23-CSE-301

Sr. no	Week	Topics to be covered	Remarks if any
1	22-30 July 2024	Introductory Concepts: Operating System, Functions and Characteristics, Historical Evolution of Operating Systems, Operating System Structure.	
2	1-8 August 2024	Types of Operating System: Real time, Multiprogramming, Multiprocessing, Batch processing. Operating System Services, Operating System Interface, Service System Calls,	
3	9-17 August 2024	System Programs. Process Management: Process Concepts, Operations on Processes, Process States and Process Control Block. Inter-Process Communication.	
4	19-24 August 2024	CPU Scheduling: Scheduling Criteria, Levels of Scheduling,	
5	27-31 August 2024	Scheduling Algorithms, Multiple Processor Scheduling, Algorithm Evaluation.	Assignment
6	2-7 September 2024	Synchronization: Critical Section Problem, Semaphores, Classical Problem of Synchronization, Monitors. Deadlocks: Deadlock Characterization,	
7	9-14 September 2024	Methods for Handling Deadlocks, Deadlock Prevention, Deadlock Avoidance, Deadlock Detection and Recovery	Class Test
8	16-21 September 2024	Memory Management Strategies: Memory Management of Single User and Multiuser Operating System, Partitioning, Swapping,	
9	24-30 September 2024	Contiguous Memory Allocation, Paging and Segmentation; Virtual Memory Management	
10	1,4,5,7-12, October 2024	Demand Paging, Page Replacement Algorithms, Thrashing.	
11	14-19 October 2024	Implementing File System: File System Structure, File System Implantation, file operations, Type of Files,	Group Discussion
12	21-26 October 2024	Directory Implementation, Allocation Methods, and Free Space Management.	
13	4-9 November 2024	Disk Scheduling algorithm- SSTF, Scan, C- Scan, Look, C-Look. SSD Management.	
14	11-16 November 2024	Revision	
15	18-22-November 2024	Revision	

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LESSON-PLAN (Session 2024-25)

Name of Assistant Professor: Dr. Naveeta Adlakha

Semester : BCA- Vth Semester

Subject : Operating System-I

Paper : BCA-352

Sr. no	Week	Topics to be covered	Remarks if any
1	22-30 July 2024	Operating System: Definition, Characteristics, Components, Functions, Examples; Types of Operating System: Single User/Multi User,	
2	1-8 August 2024	Classification of Operating System: Batch, Multiprogrammed, Timesharing, Multiprocessing, Parallel, Distributed, Real Time; System Calls and System Programs	
3	9-17 August 2024	Process Control, File Manipulation, Device Manipulation, Information Maintenance, Communications	
4	19-24 August 2024	Process Management: Process concept, Process states and Process Control Block; Process Scheduling: Scheduling Queues	
5	27-31 August 2024	Schedulers, Context Switch; Operation on Processes: Process Creation, Process Termination; Cooperating Processes, Introduction to Threads, Inter-process Communication;	Assignment
6	2-7 September 2024	CPU Scheduling: Basic Concepts, Scheduling Criteria, Scheduling Algorithms: FCFS, SJF, Priority, RoundRobin, Multilevel Queue, Multilevel Feedback Queue Scheduling	
7	9-14September 2024	Deadlocks: System Model, Deadlock Characterization, Methods of Handling Deadlocks, Deadlock Prevention,	
8	16-21 September 2024	Deadlock Avoidance, Deadlock Detection and Recovery Memory Management: Introduction, Swapping, Contiguous Allocation: Single-Partition/Multiple Partition Allocation,	Class test
9	24-30September 2024	External/Internal Fragmentation; Paging: Basic Method, Hardware, Implementation of Page table; Segmentation:	
10	1,4,5,7-12, October 2024	Basic Method, Hardware, Implementation of Segment Table, Advantages/Disadvantages of Paging/Segmentation	
11	14-19 October 2024	Virtual Memory: Introduction, Demand Paging, Page Replacement, Page Replacement Algorithms: FIFO, Optimal, LRU, Counting; Thrashing and its cause;	
12	21-26 October 2024	File Management: File Concepts, File Attributes, File Operations	Group Discussion
13	4-9 November 2024	File Types, File Access/Allocation Methods, File Protection, File Recovery TEXT BOOKS	
14	11-16November 2024	Revision	
15	18-22-November 2024	Revision	

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Name of Assistant Professor: Dr. Naveeta Adlakha

Semester : BCA- Vth Semester

Subject : Computer Networks

Paper : BCA-354

Sr. no	Week	Topics to be covered	Remarks if any
1	22-30 July 2024	Introduction to Data Communication and Computer Networks; Uses of Computer Networks; Types of Computer Networks and their Topologies;	
2	1-8 August 2024	Network Hardware Components: Connectors, Transceivers, Repeaters, Hubs, Network Interface Cards and PC Cards, Bridges, Switches, Routers, Gateways;	
3	9-17 August 2024	Network Software: Network Design issues and Protocols; Connection-Oriented and Connectionless Services; OSI Reference Model; Networking Models	
4	19-24 August 2024	Distributed Systems, Client/Server Model, Peer-to-Peer Model, Web-Based Model and Emerging File-Sharing Model;	
5	27-31 August 2024	Analog and Digital data and signals; Bandwidth and Data Rate, Capacity, Baud Rate; Transmission Impairment;	Assignment
6	2-7 September 2024	Data Rate Limits; Guided Transmission Media; Wireless Transmission ; Communication Satellites;	
7	9-14September 2024	Switching and Multiplexing; Modems and Modulation techniques; ADSL and Cable Modems;	
8	16-21 September 2024	Data Link Layer Design issues; Error Detection and Correction; Sliding Window Protocols: One-bit, Go Back N and Selective Repeat;	
9	24-30September 2024	Media Access Control: ALOHA, Slotted ALOHA, CSMA, Collision free protocols; Introduction to LAN technologies:	Class test
10	1,4,5,7-12, October 2024	Ethernet, Switched Ethernet, Fast Ethernet, Gigabit Ethernet; Token Ring; Introduction to Wireless LANs and Bluetooth; VLANs	
11	14-19 October 2024	Routing Algorithms: Flooding, Shortest Path Routing, Distance Vector Routing; Link State Routing, Hierarchical Routing;	
12	21-26 October 2024	Congestion Control; Traffic shaping; Choke packets; Load shedding; Elements of Transport Protocols;	
13	4-9 November 2024	Network Security Issues: Security attacks; Encryption methods; Digital Signature; Digital Certificate	Group Discussion
14	11-16November 2024	Revision	
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