**Lesson Plan (2025-26)**

**Name: Anil Kumar**

**Class: PGDCA Ist Semester**

**Subject: Introduction to Information Technology (PGDCA-101)**

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| Week 1 Date 06.08.2025 to 08.08.2025  Introduction to Computers: Characteristics and Limitations of Computers |
| Week 2 Date 11.08.2025 to 14.08.2025  Evolutions of Computers, Classification of Computers, Computer Languages, Types of software, Structured Programming Concepts |
| Week 3 Date 18.08.2025 to 23.08.2025  Units of a computer, CPU, ALU, Memory Hierarchy, Registers, I/O devices, Mother Board. |
| Week 4 Date 25.08.2025 to 30.08.2025  Introduction to MS-Word, Creating & Editing Text: Paragraph Formatting, Page Formatting, Template, Page |
| Week 5 Date 01.09.2025 to 06.09.2025  Views, Table; Advanced Features: Bookmark, Mail Merge, Macros |
| Week 6 Date 08.09.2025 to 13.09.2025  Introduction to MS-Excel, Creating & Editing Worksheet, Formatting data |
| Week 7 Date 15.09.2025 to 20.09.2025  Formulas and Functions, Creating Charts, Pivot Tables |
| Week 8 Date 24.09.2025 to 27.09.2025  Power Point Presentations : Creating, Manipulating & Enhancing Slides, Organizational Charts |
| Week 9 Date 29.09.2025 to 04.10.2025  Animations & Sounds, Inserting Animated Pictures |
| Week 10 Date 06.10.2025 to 11.10.2025  History of Internet, Web Browsers, Web Servers, Hypertext Transfer Protocol, Internet Protocols Addressing |
| Week 11 Date 13.10.2025 to 18.10.2025  Internet Connection Types, How Internet Works, ISPs, Search Engines, Emails and Its Working, Internet Security, Uses of Internet |
| Week 12 Date 27.10.2025 to 31.10.2025  Computer Networks and their advantages, Types of Computer Network, Network Topologies |
| Week 13 Date 03.11.2025 to 08.11.2025  Basics of Transmission Media; Cloud Computing Basics: Overview, Applications, Intranets and the Cloud; |
| Week 14 Date 10.11.2025 to 15.11.2025  Benefits, Limitations and Security Concerns |
| Week 15 Date 17.11.2025 to 20.11.2025  Revision |

Anil Kumar

Assistant Professor of Computer Science

**Lesson Plan (2025-26)**

**Name: Anil Kumar**

**Class: PGDCA Ist Semester**

**Subject: Computer Programming Using C (PGDCA-102)**

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| Week 1 Date 06.08.2025 to 08.08.2025  Problem definition, Algorithm development, Flowchart, Program Coding, compilation |
| Week 2 Date 11.08.2025 to 14.08.2025  Debugging, testing and execution, Types of errors. C Programming Fundamentals: Identifiers and keywords, Structure of C Program data types, input and output, type conversion |
| Week 3 Date 18.08.2025 to 23.08.2025  Operators & Expressions: Arithmetic, unary, logical and relational operators, assignment operator, Bit-wise, conditional operator, library functions. |
| Week 4 Date 25.08.2025 to 30.08.2025  Control statements: Decision making using if, if-else, Nested IF- Else If Ladder |
| Week 5 Date 01.09.2025 to 06.09.2025  Switch, break, continue statement and go to Statement, looping using for |
| Week 6 Date 08.09.2025 to 13.09.2025  while and do-while statements, nested loops. |
| Week 7 Date 15.09.2025 to 20.09.2025  Functions: Library functions, Defining & accessing User defined functions, function prototype and passing arguments to a function, recursion versus iteration. Macro vs function. |
| Week 8 Date 24.09.2025 to 27.09.2025  Arrays: Definition, accessing elements, initialization, passing to functions, multi-dimensional arrays |
| Week 9 Date 29.09.2025 to 04.10.2025  Strings & operations of Strings, String Handling through Built-in and User Defined Functions. |
| Week 10 Date 06.10.2025 to 11.10.2025  Pointers declaration, assignment, Pointer Arithmetic, passing pointer to functions, pointer arrays, Dynamic Memory Allocation |
| Week 11 Date 13.10.2025 to 18.10.2025  Structure and Union: Defining and Initializing Structure, accessing members, nested structures, pointer to structures, self-referential structures. |
| Week 12 Date 27.10.2025 to 31.10.2025  Unions: Introduction to Unions and its Utilities. File Handling and Storage classes: automatic, register, external and static variables |
| Week 13 Date 03.11.2025 to 08.11.2025  Opening and Closing file in C,Modes of File,Reading and Writing data to a file |
| Week 14 Date 10.11.2025 to 15.11.2025  Revision |
| Week 15 Date 17.11.2025 to 20.11.2025  Revision |

Anil Kumar

Assistant Professor of Computer Science

**Lesson Plan (2025-26)**

**Name: Anil Kumar**

**Class: PGDCA Ist Semester**

**Subject: Operating Systems (PGDCA-103)**

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| Week 1 Date 06.08.2025 to 08.08.2025  Operating systems functions and characteristics, operating system structure, operating system services, system calls, system programs |
| Week 2 Date 11.08.2025 to 14.08.2025  Types of Operating system: Batch operating system, Time-sharing operating system, Distributed operating system, Real time systems |
| Week 3 Date 18.08.2025 to 23.08.2025  Process Management: Process concept, Process States, Process Control Block, Cooperating processes |
| Week 4 Date 25.08.2025 to 30.08.2025  CPU scheduling: Levels of Scheduling, Scheduling criteria, Comparative study of scheduling algorithms, Multiple processor scheduling |
| Week 5 Date 01.09.2025 to 06.09.2025  Concurrent Processes: Critical section problem, Semaphores |
| Week 6 Date 08.09.2025 to 13.09.2025  Classical process co-ordination problems and their solutions, Monitors, Inter-process Communications. |
| Week 7 Date 15.09.2025 to 20.09.2025  Deadlock: System model, Deadlock characterization, Methods for handling Deadlocks: Deadlock prevention, Deadlock avoidance, Deadlock detection, Recovery from Deadlock. |
| Week 8 Date 24.09.2025 to 27.09.2025  Storage Management: Storage allocation methods: Single contiguous allocation, Multiple contiguous allocation, |
| Week 9 Date 29.09.2025 to 04.10.2025  Paging; Segmentation combination of Paging and Segmentation, Virtual memory concepts |
| Week 10 Date 06.10.2025 to 11.10.2025  Demand Paging, Page replacement Algorithms, Thrashing. |
| Week 11 Date 13.10.2025 to 18.10.2025  Device and file management: Disk scheduling, Disk structure, Disk management |
| Week 12 Date 27.10.2025 to 31.10.2025  File Systems: Functions of the system, File access and allocation methods, Directory Systems: Structured Organizations, directory and file protection mechanisms. |
| Week 13 Date 03.11.2025 to 08.11.2025  Case Studies: Comparative study of WINDOW, UNIX, ANDROID & LINUX system |
| Week 14 Date 10.11.2025 to 15.11.2025  Revision |
| Week 15 Date 17.11.2025 to 20.11.2025  Revision |

Anil Kumar

Assistant Professor of Computer Science

**Lesson Plan (2025-26)**

**Name: Anil Kumar**

**Class: PGDCA Ist Semester**

**Subject: Database Management Systems (PGDCA-104)**

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| Week 1 Date 06.08.2025 to 08.08.2025  Overview: File Systems vs. DBMS, Characteristics of the Data Base Approach, Database users, Advantages and Disadvantages of a DBMS, |
| Week 2 Date 11.08.2025 to 14.08.2025  Responsibility of Database Administrator. Data Base Systems Concepts and Architecture: Data Models |
| Week 3 Date 18.08.2025 to 23.08.2025  Schemas and Instances, DBMS architecture and various views of Data, Data Independence, Database languages |
| Week 4 Date 25.08.2025 to 30.08.2025  Entity Relationship Model: Basic Concepts-Entity, Attributes, Types of Attributes, Entity set and Keys |
| Week 5 Date 01.09.2025 to 06.09.2025  Relationships-Relationship set, Degree of Relationship, Roles and Structural Constraints, ER Diagrams |
| Week 6 Date 08.09.2025 to 13.09.2025  Reduction of an E-R Diagram to Tables, Binary Representation and Cardinality, Participation Constraints, |
| Week 7 Date 15.09.2025 to 20.09.2025  Relational Data Model:-Brief History, Relational Model Terminology-Relational Data Structure |
| Week 8 Date 24.09.2025 to 27.09.2025  Database Relations, Properties of Relations, Keys, Domains, |
| Week 9 Date 29.09.2025 to 04.10.2025  Integrity Constraints over Relations, Base Tables and Views |
| Week 10 Date 06.10.2025 to 11.10.2025  SQL: Introduction to SQL, Data Types in SQL, |
| Week 11 Date 13.10.2025 to 18.10.2025  Common Commands in SQL- Select, Insert, Update and Delete |
| Week 12 Date 27.10.2025 to 31.10.2025  views in SQL; Relational Database Design: Functional Dependencies, Decomposition, Desirable properties of decomposition. |
| Week 13 04.11.2024 to 09.11.2024  Normal Forms (1 NF, 2 NF, 3 NF and BCNF) |
| Week 14 Date 10.11.2025 to 15.11.2025  Revision |
| Week 15 Date 17.11.2025 to 20.11.2025  Revision |

Anil Kumar

Assistant Professor of Computer Science

**Lesson Plan (2025-26)**

**Name: Anil Kumar**

**Class: PGDCA Ist Semester**

**Subject: Web Technologies (PGDCA-105)**

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| Week 1 Date 06.08.2025 to 08.08.2025  Introduction to Internet and World Wide Web; Evolution and History of World Wide Web; Basic features; Web Browsers |
| Week 2 Date 11.08.2025 to 14.08.2025  Web Servers; Hypertext Transfer Protocol; URLs; Searching and Web Casting Techniques; Search Engines and Search Tools. |
| Week 3 Date 18.08.2025 to 23.08.2025  Web Publishing: Hosting your Site; Internet Service Provider; Planning and designing your Web Site |
| Week 4 Date 25.08.2025 to 30.08.2025  Steps for developing your Site; Choosing the contents; Home Page; Domain Names; Creating a Website; Website and its Categories. |
| Week 5 Date 01.09.2025 to 06.09.2025  HTML |
| Week 6 Date 08.09.2025 to 13.09.2025  HTML |
| Week 7 Date 15.09.2025 to 20.09.2025  HTML |
| Week 8 Date 24.09.2025 to 27.09.2025  HTML |
| Week 9 Date 29.09.2025 to 04.10.2025  HTML |
| Week 10 Date 06.10.2025 to 11.10.2025  HTML |
| Week 11 Date 13.10.2025 to 18.10.2025  HTML |
| Week 12 Date 27.10.2025 to 31.10.2025  HTML |
| Week 13 Date 03.11.2025 to 08.11.2025  HTML |
| Week 14 Date 10.11.2025 to 15.11.2025  Revision |
| Week 15 Date 17.11.2025 to 20.11.2025  Revision |

Anil Kumar

Assistant Professor of Computer Science