Lesson Plan (2024-25)

Name: Anil Kumar

Class: PGDCA Ist Semester

Subject: Introduction to Information Technology (PGDCA-101)

Week 1 Date 09.08.2024 to 10.08.2024 Introduction to Computers: Characteristics and Limitations of Computers
Week 2 Date 12.08.2024 to 17.08.2024 Evolutions of Computers, Classification of Computers, Computer Languages, Types of software, Structured Programming Concepts
Week 3 Date 19.08.2024 to 24.08.2024 Units of a computer, CPU, ALU, Memory Hierarchy, Registers, I/O devices, Mother Board.
Week 4 Date 26.08.2024 to 31.08.2024 Introduction to MS-Word, Creating & Editing Text: Paragraph Formatting, Page Formatting, Template, Page
Week 5 Date 02.09.2024 to 07.09.2024 Views, Table; Advanced Features: Bookmark, Mail Merge, Macros
Week 6 Date 09.09.2024 to 14.09.2024 Introduction to MS-Excel, Creating & Editing Worksheet, Formatting data
Week 7 Date 16.09.2024 to 22.09.2024 Formulas and Functions, Creating Charts, Pivot Tables
Week 8 Date 23.09.2024 to 28.09.2024 Power Point Presentations : Creating, Manipulating & Enhancing Slides, Organizational Charts
Week 9 Date 30.09.2024 to 05.10.2024 Animations & Sounds, Inserting Animated Pictures
Week 10 Date 07.10.2024 to 12.10.2024 History of Internet, Web Browsers, Web Servers, Hypertext Transfer Protocol, Internet Protocols Addressing
Week 11 Date 14.10.2024 to 19.10.2024 Internet Connection Types, How Internet Works, ISPs, Search Engines, Emails and Its Working, Internet Security, Uses of Internet
Week 12 Date 21.10.2024 to 26.10.2024 Computer Networks and their advantages, Types of Computer Network, Network Topologies
Week 13 Date 04.11.2024 to 09.11.2024 Basics of Transmission Media; Cloud Computing Basics: Overview, Applications, Intranets and the Cloud;
Week 14 Date 11.11.2024 to 16.11.2024 Benefits, Limitations and Security Concerns
Week 15 Date 18.11.2024 to 22.11.2024 Revision

Anil Kumar

Assistant Professor of Computer Science

Lesson Plan (2024-25)

Name: Anil Kumar

Class: PGDCA Ist Semester

Subject: Computer Programming Using C (PGDCA-102)

Week 1 Date 09.08.2024 to 10.08.2024 Problem definition, Algorithm development, Flowchart, Program Coding, compilation
Week 2 Date 12.08.2024 to 17.08.2024 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 19.08.2024 to 24.08.2024 Operators & Expressions: Arithmetic, unary, logical and relational operators, assignment operator, Bit-wise, conditional operator, library functions.
Week 4 Date Date 26.08.2024 to 31.08.2024 Control statements: Decision making using if, if-else, Nested IF- Else If Ladder
Week 5 Date 02.09.2024 to 07.09.2024 Switch, break, continue statement and go to Statement, looping using for
Week 6 Date 09.09.2024 to 14.09.2024 while and do-while statements, nested loops.
Week 7 Date 16.09.2024 to 22.09.2024 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 23.09.2024 to 28.09.2024 Arrays: Definition, accessing elements, initialization, passing to functions, multi-dimensional arrays
Week 9 Date 30.09.2024 to 05.10.2024 Strings & operations of Strings, String Handling through Built-in and User Defined Functions.
Week 10 Date 07.10.2024 to 12.10.2024 Pointers declaration, assignment, Pointer Arithmetic, passing pointer to functions, pointer arrays, Dynamic Memory Allocation
Week 11 Date 14.10.2024 to 19.10.2024 Structure and Union: Defining and Initializing Structure, accessing members, nested structures, pointer to structures, self-referential structures.
Week 12 Date 21.10.2024 to 26.10.2024 Unions: Introduction to Unions and its Utilities. File Handling and Storage classes: automatic, register, external and static variables
Week 13 Date 04.11.2024 to 09.11.2024 Opening and Closing file in C,Modes of File,Reading and Writing data to a file
Week 14 Date 11.11.2024 to 16.11.2024 Revision
Week 15 Date 18.11.2024 to 22.11.2024 Revision

Anil Kumar

Assistant Professor of Computer Science

Lesson Plan (2024-25)

Name: Anil Kumar

Class: PGDCA Ist Semester

Subject: Operating Systems (PGDCA-103)

Week 1 Date 09.08.2024 to 10.08.2024 Operating systems functions and characteristics, operating system structure, operating system services, system calls, system programs
Week 2 Date 12.08.2024 to 17.08.2024 Types of Operating system: Batch operating system, Time-sharing operating system, Distributed operating system, Real time systems
Week 3 Date 19.08.2024 to 24.08.2024 Process Management: Process concept, Process States, Process Control Block, Cooperating processes
Week 4 Date 26.08.2024 to 31.08.2024 CPU scheduling: Levels of Scheduling, Scheduling criteria, Comparative study of scheduling algorithms, Multiple processor scheduling
Week 5 Date 02.09.2024 to 07.09.2024 Concurrent Processes: Critical section problem, Semaphores
Week 6 Date 09.09.2024 to 14.09.2024 Classical process co-ordination problems and their solutions, Monitors, Inter-process Communications.
Week 7 Date 16.09.2024 to 22.09.2024 Deadlock: System model, Deadlock characterization, Methods for handling Deadlocks: Deadlock prevention, Deadlock avoidance, Deadlock detection, Recovery from Deadlock.
Week 8 Date 23.09.2024 to 28.09.2024 Storage Management: Storage allocation methods: Single contiguous allocation, Multiple contiguous allocation,
Week 9 Date 30.09.2024 to 05.10.2024 Paging; Segmentation combination of Paging and Segmentation, Virtual memory concepts
Week 10 Date 07.10.2024 to 12.10.2024 Demand Paging, Page replacement Algorithms, Thrashing.
Week 11 Date 14.10.2024 to 19.10.2024 Device and file management: Disk scheduling, Disk structure, Disk management
Week 12 Date 21.10.2024 to 26.10.2024 File Systems: Functions of the system, File access and allocation methods, Directory Systems: Structured Organizations, directory and file protection mechanisms.
Week 13 Date 04.11.2024 to 09.11.2024 Case Studies: Comparative study of WINDOW, UNIX, ANDROID & LINUX system
Week 14 Date 11.11.2024 to 16.11.2024 Revision
Week 15 Date 18.11.2024 to 22.11.2024 Revision

Anil Kumar

Assistant Professor of Computer Science

Lesson Plan (2024-25)

Name: Anil Kumar

Class: PGDCA Ist Semester

Subject: Database Management Systems (PGDCA-104)

Week 1 Date 09.08.2024 to 10.08.2024 Overview: File Systems vs. DBMS, Characteristics of the Data Base Approach, Database users, Advantages and Disadvantages of a DBMS,
Week 2 Date 12.08.2024 to 17.08.2024 Responsibility of Database Administrator. Data Base Systems Concepts and Architecture: Data Models
Week 3 Date 19.08.2024 to 24.08.2024 Schemas and Instances, DBMS architecture and various views of Data, Data Independence, Database languages
Week 4 Date 26.08.2024 to 31.08.2024 Entity Relationship Model: Basic Concepts-Entity, Attributes, Types of Attributes, Entity set and Keys
Week 5 Date 02.09.2024 to 07.09.2024 Relationships-Relationship set, Degree of Relationship, Roles and Structural Constraints, ER Diagrams
Week 6 Date 09.09.2024 to 14.09.2024 Reduction of an E-R Diagram to Tables, Binary Representation and Cardinality, Participation Constraints,
Week 7 Date 16.09.2024 to 22.09.2024 Relational Data Model:-Brief History, Relational Model Terminology-Relational Data Structure
Week 8 Date 23.09.2024 to 28.09.2024 Database Relations, Properties of Relations, Keys, Domains,
Week 9 Date 30.09.2024 to 05.10.2024 Integrity Constraints over Relations, Base Tables and Views
Week 10 Date 07.10.2024 to 12.10.2024 SQL: Introduction to SQL, Data Types in SQL,
Week 11 Date 14.10.2024 to 19.10.2024 Common Commands in SQL- Select, Insert, Update and Delete
Week 12 Date 21.10.2024 to 26.10.2024 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 11.11.2024 to 16.11.2024 Revision
Week 15 Date 18.11.2024 to 22.11.2024 Revision

Anil Kumar

Assistant Professor of Computer Science

Lesson Plan (2024-25)

Name: Anil Kumar

Class: PGDCA Ist Semester

Subject: Web Technologies (PGDCA-105)

Week 1 Date 09.08.2024 to 10.08.2024 Introduction to Internet and World Wide Web; Evolution and History of World Wide Web; Basic features; Web Browsers
Week 2 Date 12.08.2024 to 17.08.2024 Web Servers; Hypertext Transfer Protocol; URLs; Searching and Web Casting Techniques; Search Engines and Search Tools.
Week 3 Date 19.08.2024 to 24.08.2024 Web Publishing: Hosting your Site; Internet Service Provider; Planning and designing your Web Site
Week 4 Date 26.08.2024 to 31.08.2024 Steps for developing your Site; Choosing the contents; Home Page; Domain Names; Creating a Website; Website and its Categories.
Week 5 Date 02.09.2024 to 07.09.2024 HTML
Week 6 Date 09.09.2024 to 14.09.2024 HTML
Week 7 Date 16.09.2024 to 22.09.2024 HTML
Week 8 Date 23.09.2024 to 28.09.2024 HTML
Week 9 Date 30.09.2024 to 05.10.2024 HTML
Week 10 Date 07.10.2024 to 12.10.2024 HTML
Week 11 Date 14.10.2024 to 19.10.2024 HTML
Week 12 Date 21.10.2024 to 26.10.2024 HTML
Week 13 Date 04.11.2024 to 09.11.2024 HTML
Week 14 Date 11.11.2024 to 16.11.2024 Revision
Week 15 Date 18.11.2024 to 22.11.2024 Revision

Anil Kumar

Assistant Professor of Computer Science