MCM DAV College for Women, Sector – 36A, Chandigarh
Monthly Teaching Plans (Odd Semester-1st)
2025-26

Name of the Teacher: Ms. Anupreet Kalsi
Deptt: Computer Science and Applications **Class:** PGDCA- 1st Semester
Subject: Computer Fundamentals (PGD-1101)

S.No.	Date (Monthly)		Topics to be Covered	Academic Activity Undertaken *
	From	To		
1.	July/Aug, 2025	31st Aug, 2025	**UNIT - I** **Basics of Computers**: Characteristics of computers; History of computers; classification of computers based on size, architecture, and chronology; Applications of computers; Hardware, Software, and Firmware. Types of software: System and Application software; Input, Process and Output, Block diagram of a computer.	Lecture Method, PPT
2.	1st Sep, 2025	30th Sep, 2025	**Representation of information**: BIT, BYTE, Memory, Memory size; RAM, ROM, PROM, EPROM, Magnetic tapes, Disks, Organization of data on disks: Tracks, sectors, cylinders, heads, access time, seek time and latency time. ASCII and EBCDIC Codes, Binary, Octal, Decimal and Hexadecimal Number Systems and their Conversion, Integer and Floating Point Representation Input/Output devices. **UNIT - II** **Disk Operating System**: Booting sequence; Warm and Cold Booting; Concept of File and directory, Types of DOS commands: Internal and External; Internal Commands: DIR, MD, CD, CLS, COPY, DATE, DEL, PATH, PROMPT, REN, RD, TIME, TYPE, VER, VOL; External Commands: XCOPY, ATTRIB, BACKUP, RESTORE,FORMAT, DISKCOPY, Introduction to CONFIG.SYS and AUTOEXEC.BAT files. **Windows:** GUI, Icons, Toolbar, Control panel, Files and folder management under windows, Accessories, Network Neighborhood, System Tools, Recycle Bin	Lecture Method, PPT, Assignments, Demonstration of DOS Commands
3.	1st Oct, 2025	31st Oct, 2025	**LINUX:** Overview of LINUX structure, Basic Linux commands such as date, echo, cal, bc, passwd, File and Directory commands such as ls, mkdir, pwd, cd, rmdir, cat, cp, mv, rm Understanding File Access Permissions using chmod, chown, chgrp. Comparison of main features of DOS, LINUX and Windows Operating Systems. **UNIT - III** **Word Processing Software:** **Basics of Word Processing:** creating, opening, saving, and printing document, Menu Toolbars. **Editing Text:** Copy, Paste, Delete, Move etc., Finding and Replacing Text, Spell Check, Autocorrect feature, language setting and	Lecture Method, PPT, Assignments, Demonstration of Linux Commands and Word Processor

			thesaurus **Formatting:** Character, Paragraph and Page formatting, working with indents, Bulleted and numbered lists, adding Headers and Footers, setting up Multiple Columns **Working with tables:** Inserting/creating table using toolbar and drawing, formatting table, adding/deleting rows/columns, Applying borders to tables **Clipart:** Using clip art, Creating Word Art **Mail merge:** Creating merged envelops, creating merged mailing labels	
4.	1st Nov, 2025	Till the end of semester	**UNIT - IV** **Spreadsheet Software:** **Worksheet overview:** Row, Column, Cells, Menus, creating, opening, saving, and printing worksheet; working with Range **Editing information:** Entering text, numbers and formulae, AutoSum, AutoFill, spell checking **Working with Functions:** Statistical, Mathematical and String functions, date and Time functions, Trigonometric functions **Working with charts:** Line graphs, Pie charts, Bar graphs, adding Titles, Legends etc. to charts, Printing Charts **8. Presentation Software:** Basic features, selecting design templates, creating, saving and printing a simple presentation, various views, Adding pictures, shapes, clipart, audio and movie. **Revision of Syllabus**	Lecture Method, PPT, Assignments, Class tests, Demonstration of Spreadsheet and Presentation Software

Name of the Teacher: Ms. Ritu Paran
Deptt: Computer Science and Applications **Class:** PGDCA- 1st Semester
Subject: Computer Programming using C (PGD-1102)

S.No.	Date (Monthly)		Topics to be Covered	Academic Activity Undertaken*
	From	To		
1.	July/Aug, 2025	31st Aug, 2025	**UNIT - I** **Problem Solving:** Problem Identification, Analysis, Flow charts Decision Tables, Pseudo code and algorithms, Program Coding, Program Testing and Execution.	Lecture Method, PPT, Assignments given
2.	1st Sep, 2025	30th Sep, 2025	**C Language Fundamentals:** 'C' Language: History, Structure of a C program, Data types, Constants and variables, Operators and Expressions, Type casting, Type conversion, Scope Rules:Local and Global variables, I/O functions, Control constructs (Sequencing, alteration and iteration) **Header files:** stdio.h, ctype.h, string.h, math.h, stdlib.h, time.h **Storage classes:** automatic, external, static, register **Preprocessor:** #define, #include, #undef, #conditional compilation directives (#if, #else, #elif, #endif, #ifdef and #ifndef) **UNIT - II** **Functions:** library functions, user defined functions, scope rule of functions, Parameter passing: call by value and call by reference, Recursion	Lecture method, PPT, Assignments, Demonstrations
3.	1st Oct, 2025	31st Oct, 2025	**Arrays:** One dimensional and two dimensional arrays, declaring arrays, initializing arrays, processing of arrays, passing arrays as arguments to functions **Pointers:** Definition, Declaring pointers, accessing values via pointers, pointer arithmetic, pointer to strings, passing arguments using pointers, array of pointers **UNIT - III** **Strings:** Declaring String, built-in string functions-strlen(),strcpy(), strcat(), strcmp(), array of strings, two dimensional array of characters, Array of Pointers to Strings	Lecture method, PPT, Assignments, Demonstrations
4.	1st Nov, 2025	Till the end of semester	**Structure:** Defining a structure type, declaring variables of structure type, initializing structures. Accessing Structure Elements, array of structures, Array in Structures, Difference between array and structure, nested structures **Unions:** Declaring a Union, Accessing elements of a type union. **UNIT – IV** **Console Input/Output:** Console I/O Functions, Formatted Console I/O Functions, sprintf( ) and sscanf( ) Functions, Unformatted Console I/O Functions, gets(), puts() **File Input/Output:** File Operations, Opening a File, File Opening Modes, Reading from a File, Trouble in Opening a File, Writing to a File, Closing the File.	Lecture method, PPT, Assignments, Demonstrations

Name of the Teacher: Ms. Komal Rathee
Department: Computer Science and Applications
Class: PGDCA- 1st semester **Section:** N.A
Subject: Database Management (PGD-1103)

S.No.	Date (Monthly)		Topics to be Covered	Academic Activity Undertaken*
	From	To		
1.	July/Aug 2025	31st Aug, 2025	**UNIT - I** **Data Base Concept:** Data Base Vs File Oriented Approach, Basic DBMS terminology, Data Independence, General Architecture of a Data Base Management Software, Components of DBMS, Advantages and Disadvantages of DBMS. **UNIT - III** **Understanding SQL-1:** Data Types, Creating Tables, Creating a Table with data from Another table, Inserting Values into a Table, Updating Column(s) of a Table, Deleting Row(s) from a Table, Dropping a Column, Querying database tables	Lecture Method, PPT
2.	1st Sep, 2025	30th Sep, 2025	**UNIT - I** Distributed Databases, Structure and Design of Distributed Databases. **Data Base Design:** Introduction to Data Models, Entity Relationship Model, Entities, Attributes, E-R Diagrams, Conceptual Design of a relational data base model. **UNIT - III** Conditional retrieval of rows, Working with Null Values, Matching a pattern from a table, Functions: Character Functions, Date Functions, Group Functions, Ordering the result of a Query Aggregate Functions, Grouping the Result of a QuerY	Lecture Method, PPT, Class Discussion, Assignments,
3.	1st Oct, 2025	31st Oct, 2025	**UNIT - II** **Relational Model:** Storage organization for Relations, Relational Algebra, Relational Calculus, Functional dependencies, multivalued dependencies, Candidate Key and Primary Key in a Relation, Foreign Keys, Normalization - Introduction, 1NF, Partial Dependencies, 2N, data Anomalies in 2NF Relations, Transitive Dependencies 3NF **Database Security:** Database Security and Integrity: Data security risks, Password related threats, Protecting the data within the database- database privileges, system privileges and object privileges, granting and revoking privileges and Roles. **Concurrency:** locking techniques for concurrency control. **Recovery:** Causes of failures, recovery from failures, Log based recovery, checkpoints	Lecture Method, PPT, Assignments, Demonstration of SQL, Class tests
4.	1st Nov, 2025	Till the end of semester	**UNIT - IV** **Understanding SQL-II:** Definition and Advantages of Views, Creating and Altering Views, Using Views, Querying Multiple Tables using Equi-Joins, Cartesian Joins, Outer Joins, Self-Joins, SET Operators: Union, Intersect, Minus; Introduction to Nested Queries, Define Transaction, COMMIT and ROLLBACK	Lecture Method, PPT, Assignments, Demonstration of SQL, Class tests

			Revision of Syllabus	

Name of the Teacher: Ms.Ritu Paran
Deptt: Computer Science and Applications **Class:** PGDCA- 1st Semester
Subject: Computer Network (PGD-1104)

S.No.	Date (Monthly) From	To	Topics to be Covered	Academic Activity Undertaken*
1.	July/Aug, 2025	31st Aug, 2025	**UNIT - I** **1. Introduction to Computer networks and applications:** Network Structure and Architecture, Network Hardware and Software (protocol hierarchies, design issues for layers, interfaces and services: connection oriented and connection less), Network structure and architecture-point to point, multicast, broadcast, Classification of networks on the basis of Geographical Span (PAN, LAN, MAN and WAN) , LAN topologies (Bus, Ring, Star, Mesh, Tree and Hybrid). Network Connecting Devices: Repeaters, Hubs, Bridges, Routers, Gateways and Switches, Network Reference models: OSI model	Lecture Method, PPT, Videos, Class Discussion
2.	1st Sep, 2025	30th Sep, 2025	TCP / IP model. Comparison between OSI and TCP/IP. **UNIT - II** **2. Introduction to Data Communication:** Analog Signal, Digital Signal, Analog vs Digital Communication; Band Width Limitation, Data rate of a channel; Physical Layer: Transmission media: Guided (Twisted-pair, Coaxial and Optical fiber) and Unguided (Radio, Microwave and infrared), Switching: Circuit switching, Packet Switching, Message Switching, Telephone system, modems. Modulation techniques: AM, PM, FM; Multiplexing Techniques- FDM, WDM, and TDM	Lecture Method, PPT, Videos, Class Discussion, Class Test, Assignments
3.	1st Oct, 2025	31st Oct, 2025	**UNIT - III** **3. The Data Link Layer:** Design Issues, Error Detection and Correction: Nature of errors, Parity Check, CRC, Hamming Code, Elementary Data Link Protocols: Simplex. Stop and Wait Protocol, Sliding Windows Protocol: one Bit sliding windows protocol, go back n, selective repeat, HDLC: High Level Data Link Protocol.	Lecture Method, PPT, Videos, Class Discussion, Class Test
4.	1st Nov, 2025	Till the end of semester	**UNIT – IV** **4. The Network Layer:** Design Issues, Routing Algorithms (Shortest Path, Flooding, Flow Based, Distance Vector, Link State, Broadcast, Hierarchical Routing), Congestion Control Algorithms and their general principles (Leaky Bucket, Token Bucket); Internetworking: tunneling, Internet Routing, fragmentation. **Revision of Syllabus**	Lecture Method, PPT, Videos, Class Discussion, Class Test, Discussion of previous year question papers

MCM DAV College for Women, Sector – 36A, Chandigarh
Monthly Teaching Plans (Even Semester-2nd)
2025-26

Name of the Teacher:

Department: Computer Science and Applications **Class:** PGDCA- 2nd semester

Subject: OOP using Java(PGD-2101)

S.No.	Date (Monthly)		Topics to be Covered	Academic Activity Undertaken*
	From	To		
1.	Jan, 2026	31st Jan, 2026	**UNIT - I** **OOPs concepts:** Basic Concepts of Object-Oriented Programming (Objects and Classes, Data abstraction and encapsulation, Inheritance, Polymorphism, Dynamic binding, Message communication), difference between procedure oriented and object oriented approach, Benefits of OOP's; Applications of OOP's, Object-Oriented languages. **Object oriented programming with JAVA:** Byte code, Java virtual machine, Java Development Kit, java tokens, constants, variables, data types, operators, expressions, control structures, defining class, creating objects, accessing class members, method overloading, static members **UNIT - II** **Inheritance:** Defining a subclass, subclass constructor, multilevel inheritance, Hierarchical inheritance. Overriding methods	Lecture Method, PPT, web links provided, Class Discussion, Class Test, Assignments, Demonstration of programming codes
2.	1st Feb, 2026	28th Feb, 2026	Final variables, methods, and classes, Abstract Methods and Classes. **Visibility Control:** Public access, friendly access, protected access, private access, private protected access. **Arrays**: One dimensional array, declaration, creation and initialization of arrays, Array length, Two dimensional array; **UNIT-III** **Strings**: String arrays, String methods, StringBuffer class; **Interfaces**: Defining interfaces, Extending Interfaces, Implementing Interfaces. Accessing Interface variables	Lecture Method, PPT, web links provided, Class Discussion, Class Test, Assignments, Demonstration of programming codes
3.	1st Mar, 2026	31st Mar, 2026	**Packages**: Java API packages, Defining a package, Creating and Accessing packages, Adding class to a package, Hiding Classes. **Multithreaded Programming**: Creating Thread, Extending the Thread class, Stopping and Blocking a Thread, Life cycle of a Thread. **UNIT-IV** **Errors and Exception Handling:** Fundamentals, error types, exception types, using Try and catch, finally statement, Built–in exceptions.	Lecture Method, PPT, web links provided, Class Discussion, Class Test, Assignments, Demonstration of programming codes

4.	1st Apr, 2026	Till the end of semester	**Applet Programming**: Local and remote applets, Applet Life Cycle, Creating an executable Applet, Applet tag, Adding Applet to a HTML file, Passing parameters to Applets **Revision of Syllabus**	Lecture Method, PPT, web linksprovided, Class Discussion, Class Test, Assignments, Demonstration of programming codes, Previous year question papers

Name of the Teacher:
Department: Computer Science and Applications **Class:** PGDCA- 2nd Semester
Subject: Web Technologies (PGD-2102)

S.No.	Date (Monthly)		Topics to be Covered	Academic Activity Undertaken*
	From	To		
1.	Jan, 2026	31st Jan, 2026	**UNIT - I** **Introduction to HTML/DHTML:** Brief history of HTML, Building blocks of HTML, lists, links, images, image map, tables, frames, forms **Introduction to cascading style sheets (CSS):** Introduction to Style Sheets, Types of style Sheets-Inline, embedded and external style sheets.	Lecture method, Dictated notes from online sources, PPT, Assignments given, Demonstration of codes
2.	1st Feb, 2026	28th Feb, 2026	**UNIT - II** **Fundamentals of Javascript**: Features, tokens, data types, variables, operations, control constructs, strings, arrays, functions, Document Object Model, event handling. Applications related to client-side form validation. **Javascript Objects**: Core language objects, The String Object, The Math Object, and The Date Object; User Defined Objects: Creating a User Defined Object, Instances, Objects within Objects	Lecture method, Dictated notes from online sources, PPT, Assignments given, Demonstration of codes
3.	1st Mar, 2026	31st Mar, 2026	**UNIT - III** **Introduction to PHP:** Embedding PHP code in a Web Page, Basic Syntax, Defining variable and constant, PHP Data types, Operators and Expressions **Control Structures:** Making Decisions, Doing Repetitive task with looping, File inclusion statements. **Functions:** Defining a function, Call by value and Call by reference, recursive function, Library functions **Strings**: Creating and accessing String, Searching & Replacing String, Formatting String, String Related Library function.	Lecture method, Dictated notes from online sources, PPT, Assignments given, Demonstration of codes
4	1st Apr, 2026	Till the end of semester	**UNIT - IV** **Arrays:** Anatomy of an Array, Creating index based and Associative array, Accessing array Element, Looping with associative array using each() and foreach(), Some useful Library function: current(), next(), prev(), reset(), end(). **Working with Forms**: Super global variables, super global array, Importing and accessing user input, Combine HTML and PHP code. **Working with files and Directories:** Opening, closing, Coping, renaming and deleting a file, working with directories, File Uploading & Downloading	Class Test, dictated notes from online sources, PPT, Assignments given, Concluded with the syllabus, discussion of previous year question papers

Name of the Teacher:
Department: Computer Science and Applications **Class:** PGDCA- 2nd Semester
Subject: Software Engineering (PGD-2103)

S.No.	Date (Monthly)		Topics to be Covered	Academic Activity Undertaken*
	From	To		
1.	Jan, 2026	31st Jan, 2024	**UNIT - I** **Software Engineering Fundamentals:** Characteristics, Components, Applications, principles of software engineering, skills of software engineer. **Software Process Models:** Software Development Life Cycle, Waterfall Life Cycle Model, Boehm's Spiral Life Cycle Model, win Win Spiral Model	Lecture Method, PPT, Study material & web links provided, Class Discussion, Class Test, Assignments
2.	1st Feb, 2026	28th Feb, 2026	**UNIT-II** **Software Project Management:** Software Project management Plan(SPMP), Project scheduling Techniques- Work Breakdown Structure(WBS), Project Evaluation Review Technique (PERT), Gantt Charts, Critical path method (CPM) **Software Project Estimation and risk Management:** Problem-based estimation, Process based estimation, Cost Estimation Model-COCOMO Model, Software Risks, software Risk management, Risk Management activities- Risk Assessment and Risk Control, Benefits of Risk management, SRS	Lecture Method, PPT, Study material & web links provided, Class Discussion, Class Test, Assignments
3.	1st Mar, 2026	31st Mar, 2026	**UNIT-III** **Software Design:** Software Design Process, Design Failures and Remedies **Structured Analysis and Design Tools:** Structured Analysis and Structured Design (SASD)-Goals and Benefits, Data Flow Diagrams (DFD), Data Dictionary(DD), Entity-Relationship diagram(ERD)	Lecture Method, PPT, Study material & web links provided, Class Discussion, Class Test, Assignments
4.	1st Apr, 2026	Till the end of semester	**UNIT-IV** **Software Testing:** Objectives of software Testing, Principles of Software Testing, Software Testing Process, Black Box Testing, White Box Testing **Software Quality and Maintenance:** Software quality attributes, Factors affecting software quality, Aims of software maintenance, Types of software maintenance, software maintenance costs. **Revision of syllabus**	Lecture Method , PPT, Study material & web links provided, Class Discussion, Class Test, Assignments, Discussion of previous year question papers

Name of the Teacher:

Department: Computer Science and Applications **Class:** PGDCA- 2nd Semester
Subject: Computer Based Accountancy (PGD-2104)

S.No.	Date (Monthly)		Topics to be Covered	Academic Activity Undertaken
	From	To		
1	Jan, 2026	31st Jan, 2026	Accounting: Principles, concepts & conventions, double entry system of accounting, intro. of basic books of accounts of sole proprietary concern, closing of books of accounts & preparation of trial balance. Final Accounts: Trading, profit and loss accounts and balance sheet, of sole proprietary concern with normal closing entries.	Lecture Method and Discussion
2	1st Feb, 2026	28th Feb, 2026	Introduction to Manufacturing Account, final accounts of partnership firms, limited company. Introduction to Computerized Financial Accounting, coding logic and codes	Lecture Method and Discussion
3	1st Mar, 2026	31st Mar, 2026	Introduction to Computerized Inventory Control, types of inventory and associated documents, Inventory reports-nature and types, Inventory Control : ABC and Ageing analysis, Methods of Stock validation : LIFO, FIFO, actual bases,	Lecture Method and Discussion
4	1st Apr, 2026	Till end of Semester	Transaction files, Introduction to documents used data collection, processing of different files, outputs obtained	Lecture Method and Discussion