

MCM DAV College for Women, Sector – 36A, Chandigarh
Monthly Teaching Plans (Odd Semester)
Session – (2019-20)

Name of the Teacher/s : Mrs Pooja Jain

Dept : Dept. Of Computer Science & Applications

Class : BCA 3rd Sem

Subject : Information System Design And Analysis (BCA-16-303)

Section (s) : A & B

S. No.	Date (Monthly)		Topics to be Covered	Academic Activity Undertaken*
	From	To		
1.	27th July 2019	31 st August 2019	Definition and characteristics of a system. Elements of a system Environment: Boundaries and interface. Types of systems: Physical or Abstract Systems, Open and Closed System, Man - made information systems. The System Development Life Cycle, Feasibility Study, Analysis, Design, Implementation, Post-Implementation and Maintenance. The Role & Skills of System Analyst. System Planning and the Initial Investigation, Determining the users information requirements, Problem Definition and Project Initiation, Background Analysis, Fact Finding, Fact Analysis, Determination of Feasibility.	Lecture Method, Discussions, PPT
2.	1 st Sep 2019	30 th Sep 2019	Information Gathering tools: Review of Literature, Procedures and forms. On-site observation. Interviews and questionnaires. Tools of structured analysis: Data flow diagram (DFD), Data Dictionary, Decision tree and structured English, Decision table, Pros and cons of each tools.	Lecture Method, PPT, Assignment on important topics, Class Test
3.	1 st October 2019	31 st October 2019	Feasibility Study: Identification of Specific System Objectives, description of Outputs. Feasibility considerations, Steps in feasibility analysis. Feasibility Report. System Design: Logical and Physical Design, Design methodologies: Structured design, Functional Decomposition System Testing and Quality Assurance: Testing, System testing, Quality assurance and its goals, Levels of quality assurance, Trends in testing.	Lecture Method, PPT, Discussion of real life examples of software systems (both successful / unsuccessful), MST
4.	1 st Nov 2019	25 th Nov 2019	Implementation and Software Maintenance: Introduction, Conversion- Activity network for Conversion, File Conversion, User Training: Elements of user Training Post implementation review. Software Maintenance - Primary activities of a Maintenance Procedure, Reducing Maintenance Costs. Types of Software, Procedure for Hardware/Software selection: Major phases in selection, Evaluation and Validation, Vendor Selection, Post – Installation Review. Software selection-Criteria for Software Selection, the evaluation process.	Lecture Method, PPT, Assignment on important topics from the syllabus covered, Discussion of old question papers

(Lesson Plan)

MCM DAV College for Women, Sector – 36A, Chandigarh
Monthly Teaching Plans (Odd Semester)
Session – (2019-20)

Name of the Teacher/s Deeksha Gupta

Department Computer Science and Applications

Class:BCA-II(3rd Semester)

Subject Computer Oriented Numerical Method(BCA-16-304)

Section (s): A & B

S.No.	Date (Monthly)		Topics to be Covered	Academic Activity Undertaken*
	From	To		
1	26.7.19	31.8.19	Data Representation and Computer Arithmetic, Storage of Integer Numbers, Normalization and their consequences, Errors, Measures of Accuracy, Error	Lecture method, Periodic Test Assignments PPT Question Bank
2	1.9.19	30.9.19	Solution of Non-Linear Equations : Bisection Method, False-Position Method, Secant Method, Newton - Raphson Methods, Zeros of a polynomial using Birge Vieta Method, Convergences of every method Simultaneous Linear Equations: Gauss – Elimination Method, Gauss-Jordan Method, Concept of Pivoting, Iterative Method: Gauss-Seidal Method	Lecture method Periodic Test Assignments PPT Question Bank
3	1.10.19	31.10.19	Interpolation: Lagrange Interpolation, Inverse Interpolation, Finite Differences, Difference Tables, Newton's Method of Interpolation Numerical Integration: Newton-Cotes Integration Formulae: Trapezoidal Rule, Simpson's 1/3rd Rule, Simpson's 3/8th Rule.	Lecture method Periodic Test Assignments PPT Question Bank
4	1.11.19	30.11.19	Approximation: Taylor Series Representation, Chebyshev Polynomials. Solution of Ordinary Differential Equations: Introduction, Euler's Method, Runga–Kutta Methods: 2nd order & 4th order, Predictor Corrector Methods: Modified Euler's Method.	Lecture method Periodic Test Assignments Remedial classes PPT Question Bank

Lesson Plan

MCM DAV College for Women, Sector – 36A, Chandigarh
Monthly Teaching Plans (Odd Semester)
Session – (2019-20)

Name of the Teacher/s Ms. Deepti Sharda/Ms Punam

Department Computer Science & Applications
 Subject Data Structures (BCA-16-305)

Class BCA-III Sem
 Section (s) - A & B

S.No.	Date (Monthly)		Topics to be Covered	Academic Activity Undertaken*
	From	To		
1	26 th July 2019	31 st July 2019	Basic Concepts: Introduction to Complexity, Data Structure and Data Structure operations. Applications of Data Structure, Basic data Structures	Lecture Method, Reading & Discussion, Presentation, Programs Discussion, Online Resources
2	1 st August 2019	31 st August 2019	Arrays: Introduction, Types of Array, Memory representation, Applications and operations. Searching: Binary and Linear Search Sorting: Bubble sort Linked List: Operations:-traversing, searching, inserting, deleting,	Lecture Method, Reading & Discussion, Presentation, Programs Discussion, Online Resources
3	1 st sept. 2019	30 th Sept 2019	Operations on header linked list, circular linked list, doubly linked list, memory representation, Applications, polynomial manipulation. Stacks: Introduction, memory representation, Applications and operations, Quick sort Queue: Introduction, Types, Memory Representation and Applications.	Lecture Method, Reading & Discussion, Presentation, Programs Discussion, Class Test, Assignment Submission
4	1 st Oct. 2019	31 st Oct 2019	Trees – Definition and Basic concepts, Representation in Contiguous Storage, Binary Tree, Binary Tree Traversal, Searching, Insertion and deletion in Binary trees, Binary Search tree.	Lecture Method, Online Resources Reading & Discussion, Programs Discussion, Presentation, Assignment submission
5	1 st Nov 2019	19 th Nov 2019	Graphs: Introduction, Memory Representation, Graph Traversal (DFS and BFS) Sorting: Bubble sort, Insertion sort, Selection sort, Merge Sort. Comparison of various Searching and Sorting algorithms.	Lecture Method, Presentation, Programs Discussion, Referring online resources Sample Questions Discussion

**Monthly Teaching Plans (Even Semester)
Session – (2018-19)**

Name of the Teacher/s : Mrs Manmeet Kaur

Dept : Dept. Of Computer Science & Applications

Subject : Software Project Management (BCA-16-403)

Class : BCA 4th Sem

Section (s) : A & B

S. No.	Date (Monthly)		Topics to be Covered	Academic Activity Undertaken*
	From	To		
1.	9 th Jan 2020	31 st Jan 2020	Introduction to project and project management, role of a project manager in project management, a system view of project management, Stakeholders of Project, Project phases and product life cycle	Lecture Method, PPT
2.	1 st Feb 2020	28 th Feb 2020	Software Economics, reducing product size, software processes, team effectiveness, automation through software environments, Principles of modern software management. Project Management Framework, Software Tools for Project Management, Issues in Project Staff Acquisition and Team formation and Development, Model based software architectures, Workflows of the process, Checkpoints of the process.	Lecture Method, PPT, Class Test, First Assignment on important topics from the syllabus covered
3.	1 st March 2020	31 st March 2020	Project Integration: Integration Management: Project selection, project management plans, project execution, project monitoring and controlling, integrated change control Scope Management: project scope statement, Work breakdown structures, Scope verification and scope control, Process instrumentation and seven core metrics. Software management disciplines: Iterative process planning, Project organizations and responsibilities, Process automation.	Lecture Method, PPT, MST
4.	1 st April 2020	30 th April 2020	Project Scheduling: Time Management; Importance of Project Schedules, Sequencing and Scheduling Activity, Project Network Diagrams, PERT/CPM, Gantt charts, Critical chain scheduling. Cost Management: Project Cost Management - Importance and Principles of Project Cost Management, Resource Planning, Cost Estimating Techniques and. Expert Judgment, Estimating by Analogy, COCOMO Model, Cost Budgeting and Control	Lecture Method, PPT, Second Assignment on important topics from the syllabus covered, Discussion of old question papers

**Monthly Teaching Plans (Even Semester)
Session – (2019-20)**

Name of the Teacher/s Deeksha Gupta

Department Computer Science and Applications

Class BCA-II(4rd Semester)

Subject Operating System Concept and Linux (BCA-16-404)

Section (s) A & B

S. No	Date (Monthly)		Topics to be Covered	Academic Activity Undertaken*
	From	To		
1	9 th Jan 2020	31 st Jan 2020	<ul style="list-style-type: none"> • Operating Systems (OS): Introduction, its needs and services, Types of OS • Process Management: Introduction to Process, PCB, Process States, • CPU Scheduling: Scheduling Criteria and Algorithms: • Introduction to Linux: Linux's shell, Kernel, Features, History, Minimum system requirements, Boot and Root disks 	Lecture method Periodic Test Assignments PPT Online Source and Content Quiz Question Bank
2	1 st Feb 2020	28 th Feb 2020	<ul style="list-style-type: none"> • Deadlocks: Necessary and sufficient conditions for Deadlocks, Introduction to methods for handling deadlocks, deadlock detection and recovery • Linux: Terminal Handling commands, wildcards, Environment variables. • Understanding I/O Redirection and Piping: Introduction, cut, paste, sort, tee; Regular Expressions and grep 	Lecture method Periodic Test Assignments PPT, Seminar Online Source and Content , Quiz Question Bank
3	1 st March 2020	31 st March 2020	<ul style="list-style-type: none"> • Memory Management: Logical vs Physical address space, Swapping, Introduction to Paging, Segmentation • Using file system Introduction to common types of files, Filenames, directories, File System, Absolute and relative filenames, creating files and directories, listing files (ls), pwd, mv, cp, moving directories, Removing files and directories, using wildcards with files and directories, File and directory, Changing group ownership, umask settings 	Lecture method Periodic Test Assignments PPT, Seminar Online Source and Content Quiz Question Bank
4	1 st April 2020	30 th April 2020	<ul style="list-style-type: none"> • Virtual Memory Demand paging, Introduction to Page Replacement algorithms: FIFO, OPT and LRU Process Management • Process Management: Types of processes, ps, bg, fg, nice, kill. • Understanding System Administration activities: Superuser (su) command, Taking backups using tar, Managing disk space, Mounting and Un-mounting file system, Managing users, Managing printers with lpd, mknod, lpc, lpq, lprm. • Vi editor: starting vi, vi modes, inserting text, quitting vi, deleting text, copying and moving text, searching and replacing text. 	Lecture method Periodic Test Assignments Remedial classes PPT Seminar Online Source and Content Quiz Question Bank

Lesson Plan

Monthly Teaching Plans (Even Semester) Session – (2019-20)

Name of the Teacher/s Ms. Deepti Sharda, Ms. Punam Dawgotra

Department Department of Computer Science & Applications

Subject BCA-16-405 (DBMS)

Class BCA 4th Sem

Section (s) A & B

S.No.	Date (Monthly)		Topics to be Covered	Academic Activity Undertaken*
	From	To		
1	9 th Jan 2020	31 st Jan 2020	Introduction to DBMS, introduction to RDBMS, Codd's Rule for RDBMS, Difference between DBMS and RDBMS. Normalization. Data Models and their types. Introduction to Client-Server Computing- Architecture , advantages Introduction to SQL *Plus : Introduction to SQL, Oracle Data types, DML, DDL, Querying database tables, Working with Null Values, Matching a pattern from a table, Ordering the Result of a Query, Aggregate Functions, Grouping the Result of a Query, ROLLUP Operation: Getting Sub Totals, CUBE Operation : Getting Cross Tabs, Command Summary of SQL *Plus Editor.	Lecture Method, PPT, Periodic Test, Assignments, Online Sources
2	1 st Feb 2020	28 th Feb 2020	Functions, Introduction to VIEWS, Rules of DML Statements on Join Views, Dropping a VIEW, Inline Views, Materialized Views. Querying Multiple Tables: Joins ; Set Operator ; Nested Queries. Database Security and Privileges, GRANT Command, REVOKE Command, Application Privileges Management, Enhancing Performance, Sequences, Maintaining Database Objects, COMMIT and ROLLBACK.	Lecture Method, PPT, Periodic Test, Assignments, Online Sources
3	1 st March 2020	31 st March 2020	PL/SQL-I : Introduction, advantage, Block Structure, Architecture, Fundamentals, Data Types, Variables and Constants, Scope and Visibility of a Variable, Assignments and Expressions, Operator Precedence, Referencing Non- PL/SQL Variables, Built-in Functions, Conditional and Iterative Control, SQL Within PL/SQL	Lecture Method, PPT, Periodic Test, Assignments, Online Sources
4	1 st April 2020	30 th April 2020	PL/SQL-II: Cursor Management, Exception Handling in PL/SQL; Advanced PL/SQL: Subprograms, Procedure, Functions, Stored Packages, Dropping, Using Stored Function in SQL Statements, Database Trigger	Lecture Method, PPT, Periodic Test, Assignments, Online Sources