M.L. Dahanukar College of Commerce Teaching Plan: 2023 - 24

Department: I.T. Class: F.Y.B.Sc.(I.T.)

Semester: I

Subject: Programming Principles with C Name of the Faculty: Pranali Chindarkar

Month	Topics to be Covered	Internal Assessment	Number of Lectures
July	Unit1- Introduction: Algorithms, History of C, Structure of C Program. Program Characteristics, Compiler, Linker and preprocessor, pseudo code statements and flowchart symbols, Desirable program characteristics. Program structure. Compilation and Execution of a Program, C Character Set, identifiers and keywords, data types and sizes, constants and its types, variables, Character and character strings, typedef, typecasting		14
	Unit 2- Type of operators: Arithmetic operators, relational and logical operators, Increment and Decrement operators, assignment operators, the conditional operator, Assignment operators and expression, Precedence and order of Evaluation		
August	Unit 2- Block Structure, Initialization, C Preprocessor Control Flow: Statements and Blocks, If-Else, Else-If, Switch, Loops- While and For Loops Do- while, Break and Continue, Goto and Labels		16
	Unit 3 - Functions and Program Structure: Basics of functions. User defined and Library functions, Function parameters, Return values, Recursion		
September			16
	Unit 4 - Pointer and Arrays Pointer and Addresses, Pointer and Function Arguments, Pointer and Arrays, Address Arithmetic, Character Pointers and Functions, Pointer Arrays: Pointers and Functions, Multidimensional Array, Command-line Arguments, Pointers to Functions, Dynamic memory allocation		

October	Unit 5- Structures: Basics of structures, Structures	10
	and Functions, Arrays of Structures, Pointers to	
	Structures, Unions, Bit-fields File management in	
	C: Defining and Opening file Closing a file, Input	
	/ Output operations on file, Error handling in C,	
	Random access to files, Command line	
	arguments.	

Sign of Faculty

M.L. Dahanukar College of Commerce Teaching Plan: 2023 - 24

Department: I.T. Class: F.Y.B.Sc.(I.T.)

Semester:I

Subject: Digital Logic and Applications

Name of the Faculty: Ms.Shruti Save

Month	Topics to be Covered	Internal	Number of
		Assessment	Lectures
	Unit I:		10
July	Digital Systems and Binary numbers Introduction		
	to Number systems, Positional Number systems,		
	Conversions (converting between bases), Non		
	positional number systems, Unsigned and Signed		
	binary numbers, Binary Codes, Number		
	representation and storage in computer system.		
	Unit I:		24
August	Logic gates and Logic Circuits Basic and Universal		
	Gates		
	Unit II:		
	Boolean algebra and Gate level minimization		
	Introduction, Postulates of Boolean Algebra, Two		
	Valued Boolean Algebra, Principle of Duality,		
	Basic Theorems of Boolean Algebra, Boolean		
	Functions and their Representation, Gate-Level		
	Minimization, QuineMcCluskey Method		
	Unit III:		
	Combinational logic Introduction, Analysis and		
	Design Procedure for Combinational Logic		
	Circuits,		
	Unit III:		18
September	Types of Combinational Circuit.		
	Unit IV:		
	Sequential circuits Introduction, Latch, Flip-Flops,		
	Registers, Counters		
	Unit V:		08
October	Applications Bit Arithmetic and Logic unit, Carry		
	lookahead generator, Binary Multiplication and		
	Division algorithm, Booth's multiplication		
	algorithm		

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M.L. Dahanukar College of Commerce

Teaching Plan: 2023 - 24

Department: I.T. Class: B.Sc.(I.T.) Subject: Digital Logic and Applications Name of the Faculty: Snehal Borade

Semester: I

Div: A

Month	Topics to be Covered	Internal	Number of
		Assessment	Lectures
July	Digital Systems and Binary numbers		20
	Introduction to Number systems,		
	Positional Number systems, Conversions		
	(converting between bases), Non		
	positional number systems, Unsigned		
	and Signed binary numbers, Binary		
	Codes, Number representation and		
	storage in computer system.		
August	Logic gates and Logic Circuits		12
	Basic and Universal Gates		
	Boolean algebra and Gate level		
	minimization		
	Introduction, Postulates of Boolean		
	Algebra, Two Valued Boolean Algebra,		
	Principle of Duality, Basic Theorems of		
	Boolean Algebra.		
September	Combinational logic		18
	Introduction, Analysis and Design		
	Procedure for Combinational Logic		
	Circuits, Types of Combinational Circuit,		
	Review Questions		
	Representation, Gate-Level Minimization		
	(Simplification of Boolean Function), Quine-McCluskey Method, Review		
	questions		
	Sequential circuits		
	Introduction, Latch, Flip-Flops, Registers,		
	Counters, Review Questions		
October	Applications		10
	Bit Arithmetic and Logic unit, Carry		
	lookahead generator, Binary		
	Multiplication and Division algorithm,		
	Booth's multiplication algorithm		

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M.L. Dahanukar College of Commerce

Teaching Plan: 2023 - 24

Department: I.T. Class: F.Y.B.Sc.(I.T.) Semester: I

Subject: Fundamentals of Database Management Systems

Name of the Faculty: Supritha Bhandary

Month	Topics to be Covered	Internal	Number of
		Assessment	Lectures
July	Database system- concept and Architecture,		16
	Relational model and Relational database		
	constraints. Relational Algebra.		
	Conceptual modelling and database design: Data		
	modelling using the Entity Relationship model		
	(ER).		
August	The enhanced entity relationship model.		24
	Relational database design by ER and EER		
	model. Practical database design methodology		
	and use of UML diagrams.		
	Database Design theory and normalization:		
	Basics of functional dependencies and		
	normalization for relational databases.		
September	Relational database design and further		12
	dependencies. Introduction to SQL, Complex		
	queries, triggers, views, joining database tables		
	and schema modification. Query Processing and		
	optimization. File structure, hashing and indexing		
October	Transaction management and concurrency		08
	control and recovery: Introduction to transaction		
	processing concepts and theory. Concurrency		
	control technique. Database recovery technique		

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M.L. Dahanukar College of Commerce Teaching Plan: 2023 - 2024

Department: I.T. Class: F.Y.B.Sc.(I.T.) Semester: I Subject: Fundamental Of Database Management System Name of the Faculty: Snehal S. Borlikar

Month	Topics to be Covered	Internal Assessment	Number of Lectures
July	Unit 1: Database system- concept and Architecture Unit 2: Conceptual modelling and database design		15
August	Unit 2: Conceptual modelling and database design: Unit 3: Database Design theory and normalization:		15
September	Unit 3: Database Design theory and normalization: Unit 4: Introduction to SQL		20
October	Unit 4: Introduction to SQL Unit 5: Transaction management and concurrency control and recovery		10

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M.L. Dahanukar College of Commerce Teaching Plan: 2023 - 24 nent: I.T. Class: F. Y. B. Sc.(I.T.) Sem

Department: I.T. Class: F. Y. B. Sc. (I.T.) Semester: I Subject: COMPUTATIONAL LOGIC & DISCRETE STRUCTURE Name of the Faculty: Mrs. Manisha Warekar

Month	Topics to be Covered	Internal	Number of
		Assessment	Lectures
July	Set Theory		8
	Counting		6
	Probability		2
	Probability		4
August	Advance Counting		4
	Graph Theory		6
	Directed Graph		6
	Relation		6
September	Functions & Algorithm		6
	Binary Trees		6
	Lattice		6
October			

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M.L. Dahanukar College of Commerce

Teaching Plan: 2023 - 24

Department: I.T. Class: F.Y.B.Sc.(I.T.) Semester: I

Subject: Technical Communication Skills

Name of the Faculty: Kajal Shah

Month	Topics to be Covered	Internal Assessment	Number of Lectures
July	Unit I Chapter 1 full(Seven C's of Effective Communication) Chapter 2 , (Understanding Business Communication) 2.1 to 2.4		12
August	Unit 1, chapter 2 from 2.5. Unit II Chapter 3 full (Writing Business Messages and Documents) Ch 4. Developing Oral Communication Skills for Business.		20
September	Unit III & Unit IV full Ch. 5 Oral Communication Skills for Business and Communication Needs Ch.6 Understanding Specific Communication Needs.		20
October	Unit V Chapter 7 – Presentation Process		08

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