Anekant Education Society's

Tuljaram Chaturchand College of Arts, Science and Commerce, Baramati.

SYLLABUS STRUCTURE OF

FYBBA (C.A)(2022 pattern)

Bachelor of Business Administration (Computer Application)

Syllabus (CBCS Pattern) under Academic Autonomy for the year 2022-2023

Semester –I

Subject Code	Name of Subject	Credit
UBCA111	Logic in Computer Science	03
UBCA112	Data Structure using C	03
UBCA113	Relational Database Management System	03
UBCA114	Business Communication	03
UBCA115	Principles and Practices of Management and Organizational Behavior.	03
UBCA116	Computer Laboratory I[Based on UBCA112]	02
UBCA117	Computer Laboratory II [Based on UBCA113]	02
	Total	19

BBA (C.A) Programme Outcome

PSO1. Knowledge: To understand and apply the fundamental principles, concepts, and methods in diverse areas of computer science, computer applications, management, mathematics, statistics, etc.

PSO2. Problem Analysis: Identify, analyse and formulate complex real-life computing problems. Attain substantiated conclusions to solve the problems using fundamental principles of computer science and application domains by using various tools and emerging technologies.

PSO3. Design and Development: Design and develop efficient solutions for complex real-world computing problems and design system components or processes that meet the specified needs with appropriate consideration for public health and safety and the cultural, societal, and environmental considerations.

PSO4.Conduct investigations of complex problems: Ability to research, analyze and Investigate complex computing problems through the design of experiments, analysis, and interpretation of data, and synthesis of the information to arrive at valid conclusions.

PSO5. Modern Tool Usage: Create, identify and apply appropriate techniques, skills, and modern computing tools to computing activities.

PSO6. Ethics and Social Responsibility: Understand and commit to professional ethics and cyber regulations, responsibilities, and norms of professional computing practices.

PSO7. Individual and Team Work: Ability to work effectively as an individual, and as a member or leader as per need in, multidisciplinary teams.

PSO8. Life-Long Learning: Recognize the need and have the ability to engage in independent continuous reflective learning in the context of technological advancement.

PSO9. Project Management: Understand and apply computing, management principles to manage projects.

PSO10. Communication: Able to use interpersonal skills and communicate effectively with the professionals and with society to convey technical information effectively and accurately and able to comprehend and write effective reports, design documentation, and make effective presentations.

PSO11. Innovation, employability, and Entrepreneurial skills:
Identify opportunities, and pursue those opportunities to create value and wealth for the betterment of the individual and society at large.

Class: F.Y.BBA (C.A.) (Semester - I)
Paper Code: UBCA111   Title of Paper: Logic in Computer Science
Credit: 3   No. of. Hours: 48

A) Course Objectives:

1. Introduce role of logics in computer science
2. Introduce the concepts of mathematical logic and its importance.
3. Understand syntax and semantics of propositional, predicate, temporal logic and modal logic
4. Discuss propositional, predicate, temporal and modal logic and their applications.
5. Students Understand how logic relates to computing problems
6. Students be able to represent Boolean logic problems as: Truth tables, Logic circuits, Boolean algebra
7. Students understand methods of Boolean algebra.

B) Course Outcome:

Students should be able to:

CO1. Understand fundamental concepts in propositional, predicate, temporal logic and modal logic and resolution techniques.

CO2.students should able to apply the concept of program verification in real-world scenarios.

CO3. Understand how computers represent and manipulate data, computer arithmetic and conversion between different number systems.

CO4. Understand how binary decision diagram (BDD) or branching program is a data structure that is used to represent a Boolean function.

CO5.Understand how propositional logic is widely used in the making rules of inference and decision making.

CO6. Understand how predicates logic are functions that map variables to truth values.

CO7. Understand how temporal logic has found an important application in formal verification, where it is used to state requirements of hardware or software systems.

Unit 1: Introductory Concepts   (05Hr)

1.1 Introduction: What is Logic?
1.2 History of logic – Overview of logic in computer science
1.3 Definition Propositional Logic, Predicate Logic, Modal and Temporal logic
1.4 Program Verification

Unit 2: Propositional Logic   (10 Hr)

2.1 Declarative Sentence
2.2 Natural Deduction
2.3 Syntax -Well-formed formulas
2.4 Semantic-Interpretation
2.5 Meaning of logical connectives, Truth Tables
2.6 Soundness and Completeness
2.7 Normal form- Semantic Equivalence, Satisfy ability & Validity
2.8 Conjunctive Normal form &Validity

Unit 3:   Binary Decision Diagrams   (06 Hr)
3.1 Definition
3.2 Reduced and ordered Binary Decision Diagrams, Operators.

Unit 4: Predicate Logic   **(14 Hr)**
 4.1 Terms and formulas
 4.2 Logic programming
 4.3 Free and bound variables
 4.4 Substitution
 4.5 Proof theory of predicate logic
 4.6 Natural deduction
 4.7 Quantifier equivalence
 4.8 Syntax and semantic

Unit 5: Temporal logic   **(08 Hr)**
 5.1 Syntax and Semantics
 5.2 Models of Time
 5.3 Linear time Temporal Logic
 5.4 Deduction System of Temporal Logic
    Unit 6: Modal Logic   **(05 Hr)**
 6.1 Need for Modal Logic
 6.2 Syntax and Semantics

Reference Books:

1. Arindhama Singh, Logics for Computer Science, Prentice Hall India, 2004

2. Modechai Ben-Ari, Mathematical Logic for Computer Science, Springer, 3/e, 2012.

3. Michael Huth, Mark Ryan, Logic in Computer Science: Modeling and

Reasoningabout Systems, Cambridge University Press, 2005

Website Reference Link:

1) Logic for Computer Science -https://nptel.ac.in/courses/106102013
2) Logic for Computer Science -
       https://www.iitgoa.ac.in/~sreejithav/18July/logic/c
       s228.html

Class: F.Y.BBA (C.A.) (Semester - I)　　　　　Subject: BBA(C.A)
Course Code: UBCA111　　　　　Course: Logic in Computer Science

Weightage: 1= weak or low relation, 2= moderate or partial relation, 3= strong or direct relation

Course Outcomes	Programme Outcomes (POs)										
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11
CO 1	3	-	-	-	-	-	-	-	-	-	-
CO 2	3	2	-	2	-	-	-	2	-	-	-
CO 3	3	-	-	2	-	-	-	-	-	-	-
CO 4	3	-	-	-	-	-	-	-	-	-	-
CO 5	3	-	-	-	-	-	-	-	-	-	-
CO 6	3	-	-	3	-	-	-	2	-	-	-
CO 7	3	-	-	-	-	-	-	-	-	-	1

PO1. **Knowledge:**
All of the course outcomes (COs) contribute to the development of students' disciplinary knowledge in Computer Application.
In CO1 CO2 CO3 CO4 CO5 CO6 and CO7 Strongly mapped as the student will develop the deep understanding of basic concept, methods and algorithms of Logic in Computer Science.

PO2. **Problem Analysis:**
CO2 Contribute to the development of students' problem Analysis, thinking skills and problem-solving skills. It is moderately mapped as the Students will apply their knowledge to evaluate real life problems using various concepts and logic building methods.

*PO4.***Conduct investigations of complex problems:**
CO6 Strongly mapped as the students will be able to understand and apply predicate logic functions to map variables with truth values.CO2 CO3 are moderately mapped.

PO8. **Life-Long Learning:**
CO2 and CO6 moderately contribute to the development of students' ability to engage in life-long learning as all concepts in Python helps to understand real life problems and manipulation and their implementation

PO11. **Innovation, employability, and Entrepreneurial skills:**
CO6 partially relate to employability skills as students are Able to analyze and evaluate problems by using various Python functions and packages for professional development.

Class: F.Y.BBA (C.A.) (Semester-I)
Paper Code: - UBCA112   Title of Paper: Data Structure using C
Credit: 3   No. of. Hours: 48

A) Course Objectives:
1. To understand concepts of C programming and data structures
2. To understand concepts about searching and sorting techniques
3. To understand basic concepts about stacks, queues, lists, trees and graphs
4. To understand using of IF statements and loops
5. To implement various data structure for solving real life problems
6. To store and retrieve data in various data structure like Stack, Array, Queue, Linked List, Tree & Graphs
7. To understand dynamic memory allocation

B) Course Outcomes:
Student should be able to-
CO1.Introduce and understand how to apply c programming concepts.
CO2. Apply appropriate data structures to solve specific problems
CO3. Classify different data structures such as stack, queues, linked list, trees and graphs
CO4. Implement linear and non-linear data structures
CO5. Evaluate algorithms and data structures in terms of time and space complexity of basic operations.
CO6. Ability to design programs using a variety of data structures such as stacks, queues, trees, graphs.
CO7. Ability to develop some simple applications, like a desk calculator using stacks.

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Topics/Contents   **No. of Hours**

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Unit 1   **Introduction to C Language**   **(03Hr)**
     1.1 History
     1.2 Basic Structure of C Programming
     1.3 Language Fundamentals
         1.3.1 Character Set, Tokens
         1.3.2 Keyword & Identifiers
         1.3.3 Variables & Data Types
     1.4 Operators
         1.4.1 Types of Operators
         1.4.2 Precedence & Associativity

Unit 2   **Managing I/O Operations**   **(02Hr)**
     2.1 Console based I/O & related Built-in I/O Functions
         2.1.1 printf(), scanf()
         2.1.2 getch(), getchar()
     2.2 Formatted Input & Formatted Output

Unit 3   **Decision Making and Looping**   **(05 Hr)**

        3.1 Introduction
        3.2 Decision making Structure
            3.2.1 If Statement
            3.2.2 If-else Statement
            3.2.3 Nested if-else Statement
            3.2.4 Conditional Operator
            3.2.5 Switch Statement
       3.3 Loop Structure
            3.3.1 While Loop
            3.3.2 Do-while Loop
            3.3.3 For Loop
            3.3.4 Nested For Loop
       3.4 Loop Control Statements
            3.4.1 break
            3.4.2 continue
            3.4.3 goto
            3.4.4 exit

Unit 4   **Functions**   **(04 Hr)**

        4.1 Introduction
            4.1.1 Purpose of Functions
            4.1.2 Function Definition
            4.1.3 Function Declaration
            4.1.4 Function Call
       4.2 Types of Functions
       4.3 Call by value & Call by reference

Unit 5:   **Introduction to Data Structure**   **(08 Hr)**

      5.1 Pointers & Dynamic Memory Allocation
      5.2 Fundamentals of Data Structure
          5.1.1 Algorithm Analysis (Space Complexity,
               TimeComplexity,Asymptotic Notation)
      5.3 Types of data structure
      5.4 Abstract Data Types (ADT)
      5.5 Introduction to Array & Structure
      5.6 Types of Array & Representation of Array

      5.7 Polynomial Representation of Arrays
     5.7.1   Addition of Two Polynomial
     5.7.2   Evaluation of Polynomial
      5.8 Operations of Data Structure
         5.8.1 Traversing
         5.8.2 Searching (Linear and Binary Search)
         5.8.3 Sorting (Bubble, Insertion, Selection, Heap, Quick and
            Merge sort)
      5.9 Analysis of All Sorting techniques
      5.10   Self-Referential Structure

Unit 6   **Linked List**   **(05 Hr)**
6.1 Definition of Linked List
6.2 Dynamic Memory Management
6.3 Representation of Linked List
6.4 Types of Linked List
6.5 Operations on Linked List

Unit 7   **Stack**   **(05 Hr)**
7.1 Introduction and Definition
7.2 Representation of Stacks
7.3 Primitive Operations on Stacks
7.4 Applications of Stacks
7.5 Representation of Arithmetic Expressions
     7.5.1 Infix
     7.5.2 Postfix
     7.5.3 Prefix
7.6 Conversion of Expressions
     7.6.1 Infix to Prefix
     7.6.2 Infix to Postfix

Unit 8   **Queue**   **(05 Hr)**
8.1 Introduction and Definition
8.2 Representation of Queues
8.3 Primitive Operation on Queues
8.4 Applications of Queues
8.5 Types of Queue
     8.1.1   De queue
     8.1.2   Circular Queue
     8.1.3   Priority Queue

Unit 9   **Trees**   **(06 Hr)**
9.1 Introduction and Definition
9.2 Terminology
9.3 Static and Dynamic Representation
9.4 Types of Trees
9.5 Binary Search Tree (BST)
9.6 Tree Traversal

     9.6.1   In Order
     9.6.2   Pre Order
     9.6.3   Post Order

Unit 10   **Graphs**   **(05 Hr)**
10.1 Definition of Graph 10.2 Basic Concepts of
Graph 10.3 Representation of Graph
     10.3.1   Adjacency Matrix
     10.3.2   Adjacency List
   10.4   In Degree Out Degree of Graph
   10.5   Graph Traversal
     10.5.1 DFS
     10.5.2 BFS
   10.6   Spanning Tree

Reference Books:

1. C Programming Absolute Beginner's Guide by Greg Perry and Dean Miller

2. Let Us C by Yashavant -P-Kanetkar

3. Data Structure Using C - Radhakrishanan and Shrivastav

4. Practical Approach to Data Structures by Hanumanthappa

Website Reference Link:

1. Data Structures By D Samantha.pdf :
   https://docs.google.com/file/d/0B-
   RaWa38E8KsdHd6QV8zRmw1NlE/view
2. Download Data Structure eBooks for Free :
   https://www.pdfdrive.com/data-structure-books.html
3. Data Structure and Algorithms : https://www.tutorialspoint.com/data_structures
4. Learn Data Structures and Algorithms : https://www.programiz.com/dsa

Class: F.Y.BBA (C.A.) (Semester-I)   Subject: BBA(C.A)
Course Code: - UBCA112   Course : Data Structure using C

Weightage: 1= weak or low relation, 2= moderate or partial relation, 3= strong or direct relation

Course Outcomes	Programme Outcomes (POs)										
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO7	PO 8	PO 9	PO 10	PO 11
CO 1	3	-	-	-	-	-	1	-	-	-	-
CO 2	3	2	-	2	-	-	1	1	-	-	-
CO 3	2	-	3	2	-	-	-	-	-	-	-
CO 4	2	-	3	-	-	-	-	-	-	-	-
CO 5	3	2	-	2	-	-	-	-	-	-	-
CO 6	2	3	-	2	-	-	-	-	-	-	-
CO 7	2	3	-	2	-	-	1	1	-	-	1

PO1. **Knowledge:**
All of the course outcomes (COs) contribute to the development of students' disciplinary knowledge in Computer Application.
In CO1 CO2 and CO5 Strongly mapped as the student will develop the deep understanding of basic concept in C programming like creating simple programs, use of various data structures like Stack, Queue, Linked List, Tree, and Graphs for solving various problems.

PO2. **Problem Analysis:**
CO6 CO7 Contribute to the development of students' problem Analysis, thinking skills and problem-solving skills. It is moderately mapped as the Students will apply their knowledge to evaluate real life problems using various data structures in C programming.

PO3. **Design and Development:**
CO3 CO4 Strongly mapped as the students will be able to develop and implement various data

structure such as Stack, Queues, Linked List, Tress, Graphs and their applications.

PO4. **Conduct investigations of complex problems:**
CO2 CO3 CO5 CO6 CO7 are moderately mapped as the students will be able to understand and apply the programing skills for solving problems of analysis of data and solving real world problems using various data structure like Stack, Queues, Linked List, Tress, Graphs.

PO7.Individual and Team Work:
CO1 CO2 CO7 are partially mapped as the students will develop ability to work individuals and groups for while problem solving.

PO8. **Life-Long Learning:**
CO2 and CO7 moderately contribute to the development of students' ability to engage in life-long learning as all concepts in C programming which helps to understand real life problems and manipulation and their implementation.

PO11. **Innovation, employability, and Entrepreneurial skills:**
CO7 partially relate to employability skills as students are able to analyze and evaluate problems by using various C programming functions and packages for professional development.

SYLLABUS (CBCS) FOR F.Y.BBA (C.A.) (w. e. from June, 2022)

Academic Year 2022-2023

Class: F.Y.BBA (C.A.) (Semester - I)

Paper Code: UBCA113   Title of Paper: Relational Database
Management System

Credit: 3   No. of. Hours: 48

A) Course Objectives:

1. The objective of this course is to study the basics of DBMS and to learn SQL PL/SQL.
2. Enables students to understand relational database concepts and transaction management concepts in database system.
3. Enables students to understand queries for storing and retrieving, updating data.
4. Enables students to understand database design and various normalization techniques.
5. Enables students to understand transaction processing & concurrency.
6. Enables students to understand deadlock prevention techniques.
7. Enables students to understand recovery system of database.

B) Course outcomes: Student should be able to:

CO1: Demonstrate basic elements of relational database management system

CO2: Identify the data model for relevant problem.

CO3. Demonstrate how normalization help to ensure that the design of a database is efficient, organized, and free from data anomalies.

CO4. Analyze the core terms, concepts, and tools of relational database management system.

CO5. How to create conceptual and logical database designs for a business information problem.

CO6. Analyze SQL DDL, DML and simple queries.

CO7.How Database recovery techniques are used in database management systems (DBMS) to restore a database to a consistent state after a failure or error has occurred.

Topics/Contents	No. of Hours

Unit 1: Database Management System   (05Hr)

1.1 Introduction

1.2 Need of DBMS, Applications of DBMS, Advantages and

Disadvantages of DBMS

1.3 Users, Views, Schema,

1.4 Structure of DBMS

1.5 Data Models

    1.5.1 Object Based Logical Model-Object Oriented Data Model,

       Entity Relationship Data Model

    1.5.2 Relational Model

1.6 ER diagrams, extended features of ERD.

Unit 2: Relational Database Model and Design   (07 Hr)

2.1 Terms-Relation, Tuple, Attribute, Cardinality, Degree of Relationship set, Domain

2.2 Keys -Super Key, Candidate Key, Primary Key, ForeignKey, Constraints

2.3 Anomalies of un-normalized database

2.4 Normalization

2.5 Normal Form -1NF, 2NF, 3NF, BCNF)

Unit 3: SQL (Structured Query Language) **(12 Hr)**

3.1 Introduction

3.2 Basic Structure
3.3 DDL Commands

3.4 DML Commands

3.5 Simple Queries

3.6 Nested Queries

3.7 Aggregate Functions

Unit 4: Transaction processing and Concurrency **(12 Hr)**

4.1 Concept of transaction processing, ACID properties, States ofTransaction

4.2 Concurrency Execution

4.3 Serializability and Recoverability

4.4 Locking Based Protocol-Locks, Granting of Locks and 2PL

4.5 Timestamp based protocols-Timestamp, timestamp orderingProtocol, Thomas's Write Rule.

Deadlocks handling –Detection, Prevention and Recovery.

Unit 5: Recovery System **(12 Hr)**

5.1 Failure Classification

    5.1.1 Transaction Failure

    5.1.2 System Crash

    5.1.3 Disk Failure

5.2 Storage Structures

    5.2.1 Storage Types

    5.2.2 Data Access

5.3 Recovery & Atomicity

    5.3.1 Log based Recovery

    5.3.2 Deferred Database Modification

    5.3.3 Immediate Database Modification

    5.3.4 Checkpoints

5.4 Recovery with Concurrent Transaction

    5.4.1 Transaction Rollback

    5.4.2 Restart Recovery

5.5 Remote Backup System

Reference Books:

1. Database System Concepts by Henry Korth and A. Silberschatz
2. Database Management Systems, McGraw – Hill. G. K. Gupta
3. Introduction to Database Management, Wiley, by Mark L. Gillenson, Paulraj Ponniah
4. SQL,PL/SQL the Programming Language Oracle:-Ivan Bayross, BPBPublication.
5. SQL & Pl SQL for Oracle 11g Black Book 2011 Edition by
   P. S. Deshpande,Dreamtech

Website Reference Link:

1. Learn DBMS - Database Management System Tutorial : https://www.tutorialspoint.com/dbms/index.htm
2. DBMS Tutorial | Database Management System - javatpoint

   https://www.javatpoint.com/dbms-tutorial

3. PostgreSQL: The world's most advanced open source database : https://www.postgresql.org/

4. PostgreSQL Tutorial - Learn PostgreSQL frwebom Scratch : https://www.postgresqltutorial.com/

Class: F.Y.BBA (C.A.) (Semester - I)   Subject:BBA(C.A)

Paper Code: UBCA113   Course : Relational Database Management System

Weightage: 1= weak or low relation, 2= moderate or partial relation, 3= strong or direct relation

Course Outcomes	Programme Outcomes (POs)										
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO7	PO 8	PO 9	PO 10	PO 11
CO 1	3	-	-	-	-	-	-	1	-	-	-
CO 2	3	-	-	-	-	-	-	-	-	-	1
CO 3	3	-	3	-	-	-	-	-	-	-	1
CO 4	3	3	2	3	-	-	1	-	-	-	1
CO 5	3	-	-	-	-	-	-	-	2	-	-
CO 6	3	3	-	3	-	-	1	1	-	-	1
CO 7	3	3	3	2	-	-	1	-	-	-	1

PO1. **Knowledge:**
All of the course outcomes (COs) contribute to the development of students' disciplinary knowledge in Computer Application.
In CO1 to CO7 strongly mapped as the student will develop and the deep understanding of basic concept in DBMS by using queries DDL, DML & other database concepts.

PO2. **Problem Analysis:**
CO4 CO6 CO7 contribute to the development of students' problem analysis, thinking and problem-solving skills. It is strongly mapped as the Students will apply their knowledge to evaluate real life problems using various DBMS commands.

PO3. **Design and Development:**
CO3 CO7 Strongly mapped as the students will be able to develop and implement database

applications by using various commands of SQL such as DDL, DML and perform various database

operations.

*PO4.***Conduct investigations of complex problems:**
 CO4 CO6 are strongly mapped as the students will be able to understand and apply the database concepts for developing database for solving real world applications which are based for storing data.

PO7.Individual and Team Work:
CO4 CO6 CO7 are partially mapped as the students will develop ability to work individuals and groups for while problem solving.

PO8. **Life-Long Learning:**
CO1 and CO6 partially mapped as contribute to the development of students' ability to engage in life-long learning as all concepts in DBMS programming which helps to understand real life problems and manipulation and their implementation.

*PO9.***Project Management:**
CO5 is strongly mapped as contribute to understand and apply principles of project management.

PO11. **Innovation, employability, and Entrepreneurial skills:**
CO2 CO3 CO4 CO6 CO7 partially relate to employability skills as students are able to analyze and evaluate DBMS concepts for professional development.

Academic Year 2022-2023

Class: F.Y.BBA (C.A.) (Semester - I)
Paper Code: UBCA114   Title of Paper: Business Communication
Credit: 3   No. of. Hours: 48

A) Course Objectives:
1. To understand the concept, process and importance of communication.
2. To develop an integrative approach where reading, writing, presentation skills are used to get hereenhance the student's ability to communicate and write effectively.
3. To create awareness among students about methods and media of communication.
4. To make students familiar with information technology and improve job seeking skills.
5. To develop soft skills among the students while developing personality.
6. Students be able to aware of creating various types of documentations.
7. To enhance communication techniques & use of appropriate media.

B) Course Outcomes:
Student should be able to:
> **CO1**. Communicate effectively in real life situation.
> **CO2**. Distinguish among various levels of organizational communication and communication
> barrierswhile developing and understanding of Communication as a process in an organization.
> **CO3**. Demonstrate the use of basic and advanced business writing skills.
> **CO4**. Develop interpersonal communications skills that are required for social and business interaction.
> **CO5**. Analyze employ proper public speaking techniques.
> **CO6.** Demonstrate verbal and non-verbal communication ability through presentations.
> **CO7.** Develop and deliver a formal presentation.

Topics/Contents	No. of Hours

Unit 1 : Introduction to Communication   **(06Hr)**
1.1   Role of Communication in Business
1.2   Objectives of Communication
1.3   Process of Communication
1.4   Principles of Communication
1.5   Barriers to Communication
1.6   Overcoming Barriers

Unit 2 : Media of Communication   **(08 Hr)**

2.1 Written Communication- Advantages & Limitations
2.2 Oral Communication- Principles of effective oral communication - Techniques of effective speech
2.3 Face to Face Communication
2.4 Non-Verbal Communication - Body Language (Positive & Negative Gestures)handshakes, gazes, smiles, hand movements
2.5 Visual Communication
2.6 Audio Visual Communication Skills

Unit 3 : Oral Communication   **(12 Hr)**

3.1 Listening, Importance of listening, Guidelines of Effective Listening.

3.2 Group Communication/Discussion-Activity.

3.3 Speeches- Characteristics of Good Speech, Model Speech

3.4 Presentation- Elements of Presentation, Designing a Presentation, Practicing Delivery of Presentation, Media Management,

3.5 Press Conference, Seminars, Workshop, Conferences, Business Etiquettes.

3.6 Dialogue Skills- Need for Dialogue and Conversation Skill, Good Manners

Unit 4 : Written Communication   (12 Hr)

4.1 Layout of Business Letter, Enquiry letter,
   Order Letter, Complaintletter, SalesLetter,
   Office Memo

4.2 Job Application Letter- Appointment, Promotion,
   Resignationletter

4.3 Report Writing- Introduction,
   Reports by Individuals,
   Reports byCommittees.

4.4 Agenda and Minutes of Meeting

4.5 Notices- Public Notices, Tender Notices
   Copy Writing for Advertisement – Introduction, Structure ofan
   Advertisement Email Etiquette

Unit 5 : Information Technology for Communication   (10 Hr)

5.1 Introduction

5.2 Telex, Telegram, Fax, VoiceMail,
   Teleconferencing, Video Conferencing,
   Internet and Social Media Sites, E-
   communication at workplace.

5.3 Telephone Skills, Basics of Telephone
   Communication, Handle calls-
   telephone manners, Teleconference
   handling, Handling Tele interviews
   for Call Centre's.

Reference Books:

1. Business Communication (Principles, Methods and Techniques)Nirmal Singh Deep & Deep Publications Pvt. Ltd, New Delhi.

2. Essentials of Business Communication Rajendra Pal& J.S.Korlhalli Sultan Chand &Sons, New Delhi.

3. MediaandCommunicationManag ement– C.S.RayduHimalayaPublishingH ouse,Mumbai.

4. ProfessionalCommunication-ArunaKoneru- TataMcGraw- HillPublishingCo.Ltd,NewDelhi.

5. Creating a Successful CV–Siman Howard–Dorling Kindersley.

6. Business Communication–Dr.Anjali Kalkar, Ashapak G. Nadaf, Tech-MaxPublication, Pune

7. Effective Documentation and Presentation-Urmila Rai &

S.M.Rai–HimalayaPublishing House, Mumbai.

8. Principles Practices of Business Communication– Aspi Doctor & Rhoda Doctor–Sheth Publishers Pvt. Ltd

Website Reference Link:

1) Business Communication Tutorial: https://www.tutorialspoint.com/business_communication_strategies/index.htm

2) Communication Basics:https://edu.gcfglobal.org/en/business-communication/

Class: F.Y.BBA (C.A.) (Semester - I)   Subject:BBA(C.A)
Course Code: UBCA114   Course: Business Communication
Weightage: 1= weak or low relation, 2= moderate or partial relation, 3= strong or direct relation

Course Outcomes	Programme Outcomes (POs)										
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO7	PO 8	PO 9	PO 10	PO 11
CO 1	3	-	3	-	-	-	1	2	-	3	1
CO 2	3	-	-	-	-	-	-	-	-	2	-
CO 3	3	-	-	-	-	-	1	2	-	3	1
CO 4	3	-	3	-	-	-	-	2	-	2	1
CO 5	3	2	-	2	-	-	-	-	-	2	-
CO 6	3	2	3	-	-	-	-	-	-	3	1
CO 7	3	-	3	-	-	-	1	1	-	3	1

Justification for the mapping

PO1. **Knowledge:**
All of the course outcomes (COs) contribute to the development of students' disciplinary knowledge in communication.
In CO1 to CO7 strongly mapped as the student will develop and the deep understanding of different types of communications concept.

PO2. **Problem Analysis:**
CO5 CO6 partially mapped as contribute to the development of students' problem analysis, thinking and problem-solving skills..

PO3. **Design and Development:**
CO1 CO4 CO6 CO7 Strongly mapped as the students will be able to develop and implement communication techniques by advanced business writing skills, business interaction and presentation skills.

PO4. **Conduct investigations of complex problems:**
CO5 are partially mapped as the students will be able to understand and apply the public speaking techniques as well as verbal and nonverbal communication.

PO7.Individual and Team Work:
CO1 CO3 CO7 are partially mapped as the students will develop ability to work individuals and groups for while problem solving.
PO8. **Life-Long Learning:**
CO1 CO3 CO4 and CO7 partially mapped as contribute to the development of students' ability to engage in life-long learning as all concepts in business communication which helps to understand real life problems and manipulation and their implementation by communication

PO10.Communication:
All CO1 to CO7 are moderately and strongly mapped as students will develop interpersonal skills and communicate effectively with working areas.

PO11. **Innovation, employability, and Entrepreneurial skills:**
CO1 CO3 CO4 CO6 CO7 partially relate to employability skills as students are able to analyze and evaluate business communication concepts for professional development.

Class: F.Y.BBA (C.A.) (Semester - I)
Paper Code: UBCA115   Title of Paper: Principles and Practices of
                                    Management and Organizational Behaviour
Credit: 3   No. of. Hours: 48

A) Course Objectives:

1. Improve students understanding of Management & human behavior in organization and the ability to lead people to achieve more effectively toward increased organizational performance.
2. Students should understand the Impart that individual, group and structures have on their behavior within the Organization.
3. Students should identify the required behavioral model in the Organization.
4. Students should identify leadership qualities
5. Students should understands management skills
6. Students improves decision making skills
7. Students understands time managements

B) Course Outcomes:
Student should be able to-
CO1. Describe various aspects of management.
CO2. Analyze the interactions between multiple aspects of management.
CO3. Justify the role of leadership qualities.
CO4. Identify and analyze the role of planning and decision making.
CO5. Understand the nature of time management and time management strategies.
CO6. Evaluate and examine their own behavior and that of others in an organizational setting.
CO7. Understand and analyze the impact of conflict and stress on the work place.

Topics/Contents	No. of Hours

Unit 1: Management   **(08Hr)**
1.1 Meaning and Definition
1.2 Need, Scope and Process of Management
1.3 Managerial Levels/Hierarchy
1.4 Managerial Functions –Planning, Organizing, Staffing, Directing, Controlling
1.5 Types of Managers and it's Skill – Functional, Specialize, Generalize
1.6 Leadership – Meaning, Qualities of Effective Leadership and Functions of Leader.

Unit 2: Decision Making   **(05 Hr)**
2.1 Introduction
2.2 Decision Making Environment – Decision Making under Certainty, under Uncertainty under Risk
2.3 Types of Decision
2.4 Decision making Process and Tools

Unit 3: Organization and Organizational Behaviour   **(07 Hr)**
3.1 Definition and Need for Organization
3.2 Introduction to Organizational Behaviour
3.3 Goals of Organizational Behaviour
3.4 Fundamental Concepts of Organizational Behaviour

Unit 4: Motivation   **(07 Hr)**
4.1 Concept of Motivation, Benefits to Organization and Manager
4.2 Motivation Process
4.3 Maslow's Need Hierarchy Theory
4.4 McGregor's Theory 'X' and Theory 'Y'
4.5 Herzberg's Two Factor Theory of Motivation

Unit 5: Group Dynamics and Team Building   **(07 Hr)**
5.1 Concept of Group, Effect & Characteristics of Group
5.2 Types of Groups
5.3 Five Stage Model of Group Development
5.4 Concept of Team, Nature and Benefits from Team
5.5 Creating Effective Teams

Unit 6: Time Management   **(05 Hr)**
6.1 What is Time management
6.2 Time Management Strategies
   - Setting Goals, Organize, Plan ahead, Maximise Time, Prioritize, Eliminate
     Distractions,

Unit 7: Stress Management and Conflict Management   **(09 Hr)**
7.1 Work Stress - Meaning of Stress, Stressors
7.2 Sources of Stress- Individual Level, Organizational Level
7.3 Types of Stress
7.4 Type A and Type B Assessment of Personality
7.5 Effect of Stress – Physiological Effect, Psychological Effect, Behavioural Impact
7.6 Stress Management – Individual Strategies, Organizational Strategies
7.7 Concept of Conflict
7.8 Five Stage Process of Conflict
7.9 Types of Conflict- Inter-Personal, Intra-Personal, Inter-Group Organizational, Johari
     Window
7.10 Effects of Conflict
7.11 Conflict Management Strategies.

Reference Books:

1. Principles and Practices of Management-Shejwalkar

2. Essential of management-7theditionKoontzH&WeitrichHTMH

3. Management Today Principles And Practices-Burton & Thakur

4. Mgmt. Principles and Functions –Ivancevich & Gibson, Donnelly

5. Organizational behavior Keith Davis

6. Organizational behavior Fred Luthans TMH 10th edition

Website Reference Link:

1. Management Principles Tutorial –
   https://www.tutorialspoint.com/management_principles/i
   ndex.htm

2. Organizational Behavior –
   https://www.tutorialspoint.com/organizational_behavior/organizational
   _behavior
   _ quick_guide.htm

Class: F.Y.BBA (C.A.) (Semester - I) Subject:BBA(C.A)
Course Code: UBCA115 Course: Principles and Practices of

Management and Organizational Behavior

Weightage: 1= weak or low relation, 2= moderate or partial relation, 3= strong or direct relation

Course Outcomes	Programme Outcomes (POs)										
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO7	PO 8	PO 9	PO 10	PO 11
CO 1	3	-	-	-	-	-	1	2	-	3	1
CO 2	3	2	-	-	-	-	1	2	-	2	-
CO 3	3	-	3	-	-	-	-	2	-	3	1
CO 4	3	-	-	2	-	-	-	2	-	2	1
CO 5	3	-	-	-	-	-	-	-	-	2	-
CO 6	3	-	2	-	-	-	-	-	-	3	1
CO 7	3	-	-	2	-	-	1	1	-	3	1

PO1. **Knowledge:**
All of the course outcomes (COs) contribute to the development of students' disciplinary knowledge in Management.
In CO1 to CO7 strongly mapped as the student will develop and the deep understanding of different aspects of management.

PO2. **Problem Analysis:**
CO2 partially mapped as contribute to the development of students' problem analysis, thinking and problem-solving skills to utilize management skills.

PO3. **Design and Development:**
CO3 Strongly mapped as the students will be able to develop and implement management techniques by improving leadership qualities and presentation skills.

PO4. **Conduct investigations of complex problems:**
CO4 CO7 are partially mapped as the students will be able to understand and apply the planning and decision making techniques to examine their own behavior and others.

PO7.Individual and Team Work:
CO1 CO2 CO7 are partially mapped as the students will develop ability to work individuals and groups for while problem solving.

PO8. **Life-Long Learning:**
CO1 CO2 CO3 CO4 and CO7 partially mapped as contribute to the development of students' ability to engage in life-long learning as all concepts in Principles of Managements which helps to understand real life problems and manipulation and their implementation by improving management skills.

PO11. **Innovation, employability, and Entrepreneurial skills:**
CO1 CO3 CO4 CO6 CO7 partially relate to employability skills as students are able to analyze and evaluate business communication concepts for professional development.

SYLLABUS (CBCS) FOR F.Y.BBA (C.A.) (w. e. from June, 2022)
Academic Year 2022-2023

Class: F.Y.BBA (C.A.) (Semester - I)
Paper Code: UBCA116   Title of Paper: Computer Laboratory I [Based on UBCA112]
Credit: 2   No. of. Hours: 48

A) Course Objectives:
1. To study various data types, arrays, strings and functions in C.
2. To learn briefly the concept of Decision Making and looping.
3. To get familiarized to searching and sorting techniques
4. To implement linear and nonlinear data structures
5. To familiar with programming concepts in C
6. To use various data types for solving real life problems
7. To develop programming skills for sorting & searching techniques.

B)Course Outcomes:
 Student should be able to:

CO1. Explain use of appropriate data types, control statements.
CO2. Write programs using Array, String and function.
CO3. Apply the Searching and sorting algorithms for problem solving
CO4. Implement linear and nonlinear data structure
CO5.Gain problem solving techniques by use of appropriate data types, control statements.
CO6.Handle operations like searching, insertion, deletion, traversing mechanism etc. on various data structures.
CO7. Develop programming skills for solving various problems.

Topics/Contents
Programs of C and Data Structure

Assignments on operators and Evaluation of Expressions

Assignments on Decision making Statements

Assignments on Looping Statements

Assignments on Arrays.

Assignments on Strings.

Assignments on Functions

Assignments on Pointers

Assignments on Structure and Union

Assignments on Searching, Sorting

Assignments on Linked List-

- Singly Linked List-creation ,insertion, deletion , traversal

- Doubly Linked List-creation ,insertion, deletion , traversal

Assignments on Stack-Static implementation, Dynamic implementation,

Assignments on Queue- Static implementation, Dynamic implementation

Class: F.Y.BBA (C.A.) (Semester - I)   Subject:BBA(C.A)
Course Code: UBCA116   Course: Computer Laboratory I [Based on UBCA112]
Weightage: 1= weak or low relation, 2= moderate or partial relation, 3= strong or direct relation

Course Outcomes	Programme Outcomes (POs)										
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO7	PO 8	PO 9	PO 10	PO 11
CO 1	3	-	2	-	-	-	1	-	-	-	1
CO 2	3	2	2	-	-	-	1	-	-	-	-
CO 3	3	2	2	2	-	-	-	-	-	-	1
CO 4	3	-	2	2	-	-	-	2	-	-	1
CO 5	3	2	2	-	-	-	-	-	-	-	-
CO 6	3	2	2	-	-	-	-	-	-	-	1
CO 7	3	-	2	2	-	-	1	2	-	-	1

PO1. **Knowledge:**
All of the course outcomes (COs) contribute to the development of students' disciplinary knowledge in Computer Application.
In CO1 to CO7 strongly mapped as the student will develop and the deep understanding of different data structure and programming concepts of C language.

PO2. **Problem Analysis:**
CO2 CO3 CO5 CO6 moderately mapped as contribute to the development of students' problem analysis, thinking and problem-solving skills. Students understand and solve real life problems by using various data structure provided by C language like Array, Stack, Queue, Linked List, Tree, and Graph.

PO3. **Design and Development:**
All of the course outcomes are moderately mapped as the students will be able to develop and implement basic to

advanced programming by using various data structures programs in C language.

*PO4.***Conduct investigations of complex problems:**
 CO3 CO4 CO7 are partially mapped as the students will be able to understand and apply programming skills for solving various real life problems with the help of data structures provided by C language.

PO7.Individual and Team Work:
CO1 CO2 CO7 are partially mapped as the students will develop ability to work individuals and groups for while problem solving.

PO8. **Life-Long Learning:**
CO4 and CO7 partially mapped as contribute to the development of students' ability to engage in life-long learning as all concepts in C programming which helps to understand real life problems manipulation and development by programming skills.

PSO11. **Innovation, employability, and Entrepreneurial skills:**
CO1 CO3 CO4 CO6 CO7 partially relate to employability skills as students are able to analyze and evaluate C programming concepts for professional development.

Class: F.Y.BBA (C.A.) (Semester - I)
Paper Code: UBCA117   Title of Paper: Computer Laboratory II [Based on UBCA113]
Credit: 2   No. of. Hours: 48

A) Course Objectives:
1. To understand the database concepts.
2. To learn DBMS and solve problems.
3. How to remove duplicate data using queries
4. How understands database queries for solving real problems
5. Understands concepts of trigger & cursor for fetching data in database
6. To be able to understands & develop database for various applications
7. Understands various database operation with real life problems.

B) Course Outcomes:

Student should be able to:

CO1. Write SQL commands to create tables using Normalization concepts and indexes,
insert/update/delete data and query data in a relational DBMS.
CO2. Execute simple and nested queries
CO3. Write procedures and functions.
CO4. Understands use of trigger and cursor.
CO5. Understand and able to implement concept of transactions.
CO6. Apply advanced database Programming concepts for real life problems.
CO7. Create report/documentation for real life projects using SQLqueries.

Topics/Contents

PLSQL:

Introduction to PLSQL

PL/SQL: Datatypes, Language structure

Controlling the program flow, conditional statements, loops

Stored Procedures

Stored Functions

Handling Errors and Exceptions

Cursors

Triggers

Assignments on DDL Command

Assignments on Table creation with constraint

Assignments on DML command. (Insert ,Update and Delete)

Assignments on Simple Queries and Nested Queries

Assignments on Stored Procedures

Assignments on Stored Functions

Assignments on Cursors

Assignments on Triggers

Class: F.Y.BBA (C.A.) (Semester - I)   Subject:BBA(C.A)
Course Code: UBCA117   Course: Computer Laboratory II [Based on UBCA113]

Weightage: 1= weak or low relation, 2= moderate or partial relation, 3= strong or direct relation

Course Outcomes	Programme Outcomes (POs)										
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO7	PO 8	PO 9	PO 10	PO 11
CO 1	3	-	2	2	-	-	1	2	-	-	1
CO 2	3	-	2	-	-	-	1	-	-	-	-
CO 3	3	-	2	2	-	-	-	-	-	-	1
CO 4	3	-	2	2	-	-	-	2	-	-	1
CO 5	3	2	2	-	-	-	-	-	-	-	-
CO 6	3	2	2	-	-	-	-	-	-	-	1
CO 7	3	-	2	2	-	-	1	2	-	-	1

PO1. **Knowledge:**
All of the course outcomes (COs) contribute to the development of students' disciplinary knowledge in Computer Application.
In CO1 to CO7 strongly mapped as the student will develop and the deep understanding of different concepts of DBMS by using SQL commands.

PO2. **Problem Analysis:**
CO5 CO6 moderately mapped as contribute to the development of students' problem analysis, thinking and problem-solving skills. Students understand and solve real life problems by using various commands DDL & DML, database concepts provided by SQL.

PO3. **Design and Development:**
All of the course outcomes are moderately mapped as the students will be able to develop and implement basic to

advanced programming by using various DDL DML commands in SQL.

*PO4.***Conduct investigations of complex problems:**
CO1 CO3 CO4 CO7 are partially mapped as the students will be able to understand and apply programming skills for solving various real life problems with the help of SQL commands.

PO7.Individual and Team Work:
CO4 CO7 are partially mapped as the students will develop ability to work individuals and groups for while problem solving.

PO8. **Life-Long Learning:**
CO1 CO4 and CO7 partially mapped as contribute to the development of students' ability to engage in life-long learning as all concepts in RDBMS programming which helps to understand real life problems manipulation and development by programming skills.

PO11. **Innovation, employability, and Entrepreneurial skills:**
CO1 CO3 CO4 CO6 CO7 partially relate to employability skills as students are able to analyze and evaluate SQL programming concepts for professional development.