Anekant Education Society's

Tuljaram Chaturchand College, Baramati

(Autonomous)

Four Year Degree Program in BBA (CA)

(Faculty of Commerce)

CBCS Syllabus

FYBBA (C.A.) Semester -I

For Department of BBA (Computer Application)

Tuljaram Chaturchand College, Baramati

Choice Based Credit System Syllabus (2023 Pattern)

(As Per NEP 2020)

To be implemented from Academic Year 2023-2024

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AES's T. C. College (Autonomous), Baramati. CBCS Syllabus 2023 Pattern as per NEP 2020

Title of the Programme: F.Y.BBA (Computer Application)

Preamble

AES's Tuljaram Chaturchand College has made the decision to change the syllabus of across various faculties from June, 2023 by incorporating the guidelines and provisions outlined in the National Education Policy (NEP), 2020. The NEP envisions making education more holistic and effective and to lay emphasis on the integration of general (academic) education, vocational education and experiential learning. The NEP introduces holistic and multidisciplinary education that would help to develop intellectual, scientific, social, physical, emotional, ethical and moralcapacities of the students. The NEP 2020 envisages flexible curricular structures and learning based outcome approach for the development of the students.By establishing a nationally accepted and internationally comparable credit structure and courses framework, the NEP 2020 aims to promote educational excellence, facilitate seamless academic mobility, and enhance the global competitiveness of Indian students. It fosters a system where educational achievements can be recognized and valued not only within the country but also in the international arena, expanding opportunities and opening doors for students to pursue their aspirations on a global scale.

In response to the rapid advancements in science and technology and the evolving approaches in various domains of BBA (Computer Application) and related subjects, the Board of Studies in BBA (Computer Application)   at Tuljaram Chaturchand College, Baramati - Pune, has developed the curriculum for the first semester of F.Y. BBA (Computer Application),which goes beyond traditional academic boundaries. The syllabus is aligned with the NEP 2020 guidelines to ensure that students receive an education that prepares them for the challenges and opportunities of the 21st century. This syllabus has been designed under the framework of the Choice Based Credit System (CBCS), taking into consideration the guidelines set forth by the National Education Policy (NEP) 2020, LOCF (UGC), NCrF, NHEQF, Prof. R.D. Kulkarni's Report, Government of Maharashtra's General Resolution dated 20th April and 16th May 2023, and the Circular issued by SPPU, Pune on 31st May 2023.

BBA (Computer Application)is Undergraduate Degree Program with Computer Applications and Management Subjects. This program provides sound knowledge of theory and practical's. The different subjects helps the students to design, develop and implement software

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Applications, to learn emerging computer technologies and produce skilled human resource to face the professional challenges.

Overall, revising the BBA (Computer Application) syllabus in accordance with the NEP 2020 ensures that students receive an education that is relevant, comprehensive, and prepares them to navigate the dynamic and interconnected world of today. It equips them with the knowledge, skills, and competencies needed to contribute meaningfully to society and pursue their academic and professional goals in a rapidly changing global landscape.

Eligibility: 12th Pass/ 10+2

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Programme Specific Outcomes (PSOs)

*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, analyze 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.

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Anekant Education Society's

Tuljaram Chaturchand College, Baramati
(Autonomous)

Board of Studies (BOS) in BBA (Computer Application)

From 2022-23 to 2024-25

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Sr.No.	Name	Designation
1.	Mrs. SudhaPatil	Chairman
2.	Ms. Madhuri Saste	Member
3.	Ms. Reshma Babar	Member
4.	Mrs. AshwiniBhosale	Faculty
5.	Ms. VaishnaviShivarkar	Faculty
6.	Mrs. JyostnaGharge	Faculty
7.	Dr. RanjeetPatil	Expert from SPPU Pune
8.	Dr. Sagar Jambhorkar	Expert from other University
9.	Dr. Arjun Mane	Expert from other University
10.	Mr. Harish Saitwal	Industry Expert
11.	Mr. Prithviraj Sawant	Meritorious Alumni
12.	Mr. Tejas Shinde	Student Representative
13	Ms. Fatima Baramatiwala	Student Representative

Credit Distribution Structure for F.Y.BBA(Computer Applications)-2023-2024

Level	Semester	Major		Minor	OE	VSC, SEC, (VSEC)	AEC, VEC, IKS	OJT, FP, CEP, CC, RP	Cum. Cr/Sem	Degree/ Cum.Cr.
		Mandatory	**Electives**							
4.5	I	BCA-101-MJM: Programing in C(2 credits)	—	—	BCA-116-OE: E-Commerce (2 credits)	BCA-121-VSC: Networking (2 credits)	ENG-131-AEC (English) (2 credit)	CC1 (2 credit)	22	UG Certificate 44 credits
		BCA-102-MJM:Database Management System (2 credits)			BCA-117-OE:Office Automation using MS-Office (2 credits)	BCA-126-SEC: MS-Excel Skills for Business (2 credits)	BCA-135-VEC: Environmental Pollution and Value Education (2 credits)			
		BCA-103-MJM:Practical I (2 credits)					BCA-137-IKS: Indian Innovations in Computer andTechnology (2 credits)			
	II	BCA-151-MJM: Data Structure using C (2 credits)	—	BCA-161-MN: Principles and Practices of Management &Organizational Behavior (2 credits)	BCA-166-OE: Introduction to Business Analytics (2 credits)	BCA-171-VSC: Networking Laboratory (2 credits)	ENG-181-AEC (English) (2 credit)	CC2 (2 credit)	22	
		BCA-152-MJM: Relational Database Management System (2 credits)			BCA-167-OE:Python for Everyone (2 credits)	BCA-176-SEC Advance Excel (2 credits)	BCA-185-VEC: Save The Earth (2 credits)			
		BCA-153-MJM: Practical II								
	Cum Cr.	12	--	2	8	8	10	4	44	

Course Structure for F.Y.BBA(C.A.) (2023 Pattern)

Sem	Course Type	Course Code	Course Name	Theory / Practical	Credits
I	Major Mandatory	BCA-101-MJM	Programing in C	Theory	02
	Major Mandatory	BCA-102-MJM	Database Management System	Theory	02
	Major Mandatory	BCA-103-MJM	Practical I	Practical	02
	Open Elective (OE)	BCA-116-OE	E-Commerce	Theory	02
	Open Elective (OE)	BCA-117-OE	Office Automation using MS-Office	Practical	02
	Vocational Skill Course (VSC)	BCA-121-VSC	Networking	Theory	02
	Skill Enhancement Course (SEC)	BCA-126-SEC	MS-Excel Skills for Business	Practical	02
	Ability Enhancement Course (AEC)	ENG-131-AEC	AEC1 (English)	Theory	02
	Value Education Course (VEC)	BCA-135-VEC	Environmental Pollution and Value Education	Theory	02
	Indian Knowledge System (IKS)	BCA-137-IKS	Indian Innovations inComputer and Technology	Theory	02
	Co-curricular Course (CC)	--	To be selected from the Basket	Theory	02
				Total Credits Semester-I	**22**
II	Major Mandatory	BCA-151-MJM	Data Structure using C	Theory	02
	Major Mandatory	BCA-152-MJM	Relational Database Management System	Theory	02
	Major Mandatory	BCA-153-MJM	Practical II	Practical	02
	Minor	BCA-161-MN	Principles and Practices of Management &Organizational Behavior	Theory	02
	Open Elective (OE)	BCA-166-OE	Introduction to Business Analytics	Theory	02
	Open Elective (OE)	BCA-167-OE	Python for Everyone	Practical	02
	Vocational Skill Course (VSC)	BCA-171-VSC	Networking Laboratory	Practical	02
	Skill Enhancement Course (SEC)	BCA-176-SEC	Advance Excel	Practical	02
	Ability Enhancement Course (AEC)	ENG-181-AEC	AEC-2 (English)	Theory	02
	Value Education Course (VEC)	BCA-185-VEC	Save The Earth	Theory	02
	Co-curricular Course (CC)	--	To be selected from the Basket	Theory	02
				Total Credits Semester-II	**22**
				Cumulative Credits Semester I + Semester II	**44**

AES's T. C. College (Autonomous), Baramati. CBCS Syllabus 2023 Pattern as per NEP 2020

CBCS Syllabus as per NEP 2020 for F.Y.BBA (Computer Application) (2023 Pattern)

Name of the Programme: BBA (Computer Application)

Programme Code: UBCA

Class: F.Y. BBA (C.A)

Semester: I

Course Type: Major Mandatory (Theory)

Course Code: BCA-101-MJM

Course Title : Programing in C

No. of Credits: 02

No. of Teaching Hours : 30

Course Objectives:

1. To acquire the fundamental principles, concepts and constructs of C programming.
2. To develop competency for the design, coding and debugging.
3. To understand the various steps in program development through the structured programming approach.
4. To learn the syntax and semantics of C programming language thereby learning the programming concepts in general.
5. To learn the use of structured programming approach in solving problems.
6. To decompose the problem in structured way.
7. To provide a broad overview of problem solving techniques and use of c language programming to solve these problems.

Course Outcomes:

By the end of the course, students will be able to:

CO1. Read, understand and trace the execution of programs written in C language.

CO2. Illustrate and explain the basic computer concepts and programming principles of C language.

CO3. Devise pseudocodes and flowchart for computational problems.

CO4. Write, debug and execute simple programs in 'C'.

CO5. Develop C programs to demonstrate the applications of derived data types such as arrays and functions.

CO6. Develop modular applications using C programming language.

CO7. Apply the concepts of looping, branching, and decision-making statements for a given

Problem

Topics and Learning PointsTeaching Hours

UNIT 1:   **Introduction to C Language**   04
    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

UNIT2:   **Managing I/O Operations**   03
    2.1Console 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

UNIT3:   **Decision Making and Looping**   09
    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 go to
        3.4.4 exit

UNIT4:   **Functions**   06
    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
     4.2.1 Call by value
     4.2.2 Call by reference
4.3 Recursion
4.4 Storage Classes

UNIT5:   **Arrays And Strings**   **08**

5.1   Introduction to One- Dimensional Array
     5.1.1 Definition
     5.1.2 Declaration
     5.1.3 Initialization
5.2 Introduction to Two- Dimensional Array
     5.2.1 Definition
     5.2.2 Declaration
     5.2.3 Initialization
5.3 Dynamic Memory Allocation
5.3.1 Using malloc() Function
     5.3.2 Using calloc() Function
     5.3.3 Resizing Array using realloc() Function
5.4 Introduction to string
     5.4.1 Definition
     5.4.2 Declaration
     5.4.3 Initialization
     5.4.4 String Handling Functions

References:

1. "Let Us C" by Yashwant Kanetkar, 17th Edition, BPB Publication.

2. K.N.King, "C Programinng: Modern approach", 2nd Edition, W.W Norton and Comp.

3. Greg Perry and Dean Meler,"C programing Absolute Beginer's Guide", 3rd Edition.

4. Mike McGrath,"C programing in easy steps", 5th Edition, McGraw Hill Education.

5. "The C Programming Language" by Brian W Kernighan / Dennis Ritchie.

6. "C in Depth" by Deepali Srivastava and S K Srivastava.

7. "Programming in ANSI C" by E Balgurusamy, 2nd Edition.

CBCS Syllabus as per NEP 2020 for F.Y. BBA (Computer Application) (2023 Pattern)

Name of the Programme: BBA (Computer Application)

Programme Code:UBCA

Class: F.Y. BBA (C.A)

Semester: I

Course Type: Major Mandatory (Theory)

Course Code: BCA-102-MJM

Course Title   **:** Database Management System

No. of Credits: 02

No. of Teaching Hours   **:** 30

Course Objectives:

1. To know the Fundamentals of Databases
2. To understand how to use Databases in day to day Applications.
3. To Discuss Database management systems, databases and its applications
4. To familiarize the students with a good formal foundation on the relational model.
5. To Outline the various systematic database design approaches.
6. To understand how a real world problem can be mapped to schemas.
7. To solve different industry level problems & to learn its applications.

Course Outcomes:

By the end of the course, students will be able to:

CO1. Describe the fundamental elements of Database management system.

CO2. Design ER-models to represent simple database application scenarios.

CO3. Formulate Queries using SQL and Relational Formal Query Languages.

CO4. Apply different normal forms to design the Database.

CO5. Improve the database design by normalization.

CO6. Recognize and identify the use of normalization and functional dependency, indexing and hashing technique used in database design.

CO7. Analyze and design a real database application and develop and evaluate a real database

application using a database management system.

Topics and Learning PointsTeaching Hours

UNIT1:   **Introduction of DBMS**   03

   1.1. Introduction

   1.2 Definition of DBMS

   1.3. Describing & storing data

     (Data models - relational, hierarchical, network)

   1.4. Levels of abstraction

   1.5. Data independence

   1.6. Structure of DBMS

   1.7. Users of DBMS

     1.7.1 Database Designers

     1.7.2 Application programmer

     1.7.3 Sophisticated Users

     1.7.4 End Users

   1.8. Advantages and Disadvantages of DBMS

UNIT2:   **Data Models**   06

   2.1 Introduction

   2.2 Data Models

     2.2.1 Object Based Logical Model

     2.2.2 Record Base Logical Model

       a. Relational Model

       b. Network Model

       c. Hierarchical Model

   2.3 Entity Relationship Model

     2.3.1 Entity Set

     2.3.2 Attribute

     2.3.3 Relationship Set

   2.4 Entity Relationship Diagram (ERD)

   2.5 Extended features of ERD

UNIT3:   **Relational Databases**   06

   3.1 Introduction

   3.2 Terms

     a. Relation

     b. Tuple

     c. Attribute

     d. Cordinality

     e. Degree f. Domain

   3.3 Keys

     3.3.1 Super Key

     3.3.2 Candidate Key

     3.3.3 Primary Key

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	3.3.4 Foreign Key
	3.4 Relational Algebra
	3.4.1 Operations
	a. Select
	b. Project
	c. Union
	d. Difference
	e. Intersection
	f. Cartesian Product
	g. Natural Join

UNIT4:   **SQL (Structured Query Language)**   **10**

4.1 Introduction

4.2 History of SQL

4.3 Basic Structure

4.4 DDL Commands

4.5 DML Commands

4.6 Simple Queries

4.7 Nested Queries

4.8 Aggregate Functions

4.9 Clauses

UNIT5:   **Relational Database Design**   **05**

5.1 Introduction

5.2 Anomalies of un normalized database

5.3 Normalization

5.4 Normal Form

    5.4.1 1 NF

    5.4.2 2 NF

    5.4.3 3 NF

References:

1. Database System Concepts By Henry korth and A. Silberschatz S. Sudarshan,Tata McGraw- Hill Education

2. An Introduction to Database System by Bipin Desai

3. Database Management Systems, Raghu Ramakrishnan and Johannes Gehrke, McGraw-Hill Science/Engineering/Math; 3 Edition

4. Teach Yourself SQL in 14 days by Jeff Parkins and Bryan Morgan

5. Database Systems, Shamkant B. Navathe, RamezElmasri,Pearson Higher Education.

CBCS Syllabus as per NEP 2020 for F.Y. BBA (Computer Application) (2023 Pattern)

Name of the Programme: BBA (Computer Application)

Programme Code: UBCA

Class: F.Y. BBA (C.A)

Semester: I

Course Type: Major Mandatory (Theory)

Course Code: BCA-103-MJM

Course Title   : Practical I

No. of Credits: 02

No. of Teaching Hours   : 60

Course Objectives:

1. To make the student learn a programming language.
2. To learn problem solving techniques.
3. To teach the student to write programs in C and to solve the problems.
4. To study various data types, arrays, strings and functions in C.
5. Understand the basic concepts and the applications of database systems.
6. Master the basics of SQL and construct queries using SQL.
7. Understand the relational database design principles.
8. Familiar with database storage structures and access techniques.

Course Outcomes:

By the end of the course, students will be able to:

CO1. Explain use of appropriate data types, control statements.

CO2. Write programs using Array, String and function.

CO3. Read, understand and trace the execution of programs written in C language.

CO4. Write the C code for a given algorithm.

CO5. Demonstrate the basic elements of a relational database management system

CO6. Identify the data models for relevant problems.

CO7. Design entity relationship and formulate SQL queries on the respect data.

CO8. Extend normalization for the development of application software's.

Topics and Learning PointsTeaching Hours

C Assignments

1. Assignments on Basics programs.

2. Assignments on variables and constants.

3. Assignments on Different data types.

4. Assignments on operators and Expressions.

5. Assignments on Decision making Statements.

6. Assignments on Switch Statements.

7. Assignments on Looping Statements.

8. Assignments on Loop control Statements.

9. Assignments on Math Functions and I/O Functions.

10. Assignments on Call by value and call by reference.

11. Assignments on Recursion.

12. Assignments on 1 D- Arrays.

13. Assignments on 2 D- Arrays.

14. Assignments on Dynamic Memory Allocation.

15. Assignments on String and String Handling functions.

Database Assignments

1 Assignment on SQL – DDL Commands.

2 Assignment on SQL – DML Commands.

3 Assignment on SQL – DTL Commands.

4 Assignment on Aggregate Functions.

5 Assignment on Relational Algebra Operations.

6 Assignment on Nested Queries.

7 Assignment on Create Database, select database, Drop database.

8 Assignment on Create Table, Drop table, Insert Query, Select Query.

9 Assignment on Constraints.

10 Assignment on Displaying data from Multiple tables.

11 Assignment on Operators, Expressions, where clause, AND & OR clauses.

12 Assignment on Update Query/Delete Query, Like clause, Limit Clause.

13 Assignment on Order By Clause with Ascending and Descending order.

14 Assignment on Order By, Group By, With Clause, Having Clause, Distinct keyword

15 Assignment on Constraints, Joins, Union Clause, NULL Clause, Alias Syntax.

CBCS Syllabus as per NEP 2020 for F.Y.BBA (Computer Application) (2023 Pattern)

Name of the Programme: BBA (Computer Application)

Programme Code: UBCA

Class: F.Y. BBA (C.A)

Semester: I

Course Type: OE

Course Code: BCA-116-OE

Course Title : E-Commerce

No. of Credits: 02

No. of Teaching Hours : 30

Course Objectives:

1. To discuss the key business concepts and strategies applicable to business commerce.
2. To understand the impact of business commerce applications.
3. To instill idea of convergence of business relationship through recent technologies.
4. To identify, define and differentiate the various modes of electronic commerce.
5. To Describe the use of electronic payment systems.
6. Familiarize the students with a business documents and digital library.
7. To Get the Knowledge about multimedia systems for e-commerce.

Course Outcomes:

By the end of the course, students will be able to:

CO1. Gain an Understanding on how innovative use of the Business Commerce can help developing competitive advantages.

CO2. Develop an understanding on how internet can help business grow.

CO3. Enumerate the technological changes in trade.

CO4. Describe about the digital token credit based electronic payment system.

CO5. Interpret various terminologies of electronic commerce.

CO6. Analyze the impact of E-commerce on business models and strategy.

CO7. Describe how procurement and supply chains relate to B2B E-commerce.

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Topics and Learning PointsTeaching Hours	
UNIT1: **Introduction to Electronic Commerce**	**08**
1.1 E-Commerce(Introduction and Definition)	
1.2 Main activities E-Commerce	
1.3 Goals of E-Commerce	
1.4 Technical Components of E-commerce	
1.5 Functions of E-commerce	
1.6 Advantages and Disadvantages of E-commerce	
1.7 Scope of E-Commerce	
1.8 Electronic Commerce Applications	
1.9 Electronic Commerce and Electronic Business (C2C)(2G , G2G , B2G , B2P,B2A,P2P,B2A,C2A,B2B,B2C)	
UNIT2: **Electronic Payment System**	**10**
2.1 Introduction	
2.2 Types Of Electronic Payment System	
2.3 Payment Types	
2.4 Traditional Payment	
2.5 Value Exchange System	
2.6 Credit Card System	
2.7 Electronic Funds Transfer	
2.8 Paperless Bill	
2.9 Modern Payment Cash	
2.10 Electronic Cash	
UNIT3: **E-Commerce Technology**	**12**
3.1 Security Issues in E-Commerce	
3.2 Legal and Ethical Issues	
3.3 Role of social media in e-Commerce Industry	
3.4 Mobile Commerce Risk	
3.5 Security and Payment Methods	
3.5.1 Mobile Money	
3.6 Infrastructure and Fraud Prevention For M-Payment	
3.7 Current Trends in Electronic World	
3.7.1 E-Waste	
3.7.2 E-Surveillance	
3.7.3 E-Governance	
3.7.4 E-Care.	

References:

1. E-Commerce-Kenneth C. Laudon and Carol Guercio Traver.

2. E-Commerce by --Kamlesh KBajajand Debjani Nag.

3. Internet marketing and E-commerce-Ward Hansonand Kirthi Kalyanam.

4. E-Commerce Concepts, Models, Strategies by--G.S. VMurthy.

5. Electronic Commerce by--GaryP. Schneider.

CBCS Syllabus as per NEP 2020 for F.Y.BBA (Computer Application) (2023 Pattern)

Name of the Programme: BBA (Computer Application)

Programme Code: UBCA

Class: F.Y. BBA (C.A)

Semester: I

Course Type: OE

Course Code: BCA-117-OE

Course Title   : Office Automation using MS-Office

No. of Credits: 02

No. of Teaching Hours   : 60

Course Objectives:

1. The main aim of this course is to develop relevant skills in office management practices, and office automation techniques.
2. To familiarize the students in preparation of documents and presentations with office automation tools.
3. These tools help organizations collect, manage, and analyze securely to accomplish everyday tasks and processes.
4. To enable the students to study MS Office and to enrich the practical knowledge in MS Office.
5. Introduces the basic features of Microsoft Office, Windows basics, and file management. Develops familiarity with Word, Excel, Access, PowerPoint, email.
6. MS Access is used to store large amounts of data in an organized and efficient manner, MS-Access is used to Plan, design, create, manipulate and query databases.
7. Use Access to generate reports, understand database terminology, produce user input forms.

Course Outcomes:

By the end of the course, students will be able to:

CO1. Craft professional word documents, excel spreadsheets, PowerPoint presentations using the Microsoft office tools.

CO2. Applying basic formulas and functions.

CO3. Manipulate slides to enhance the look of the slides as well as whole presentation by inserting a picture, objects, formatting etc.

CO4. Running a slide show with various transitions.

CO5. Carry out accounts maintenance for day to day activities using spread sheet.

CO6. Insert and manipulate tables, enhance table using borders and shading features.

CO7. Proficient in using Windows, Word Processing Applications, Spreadsheet Applications, Database Applications and Presentation Graphics Applications.

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Topics and Learning PointsTeaching Hours

UNIT1: **Word**   **15**

1.1 Working with document
- 1.1.1   Opening and Saving files
- 1.1.2   Editing text document
- 1.1.3   Inserting ,Deleting, Cut, Copy, Paste, Undo, Redo, Find Search, Replace
- 1.1.4   Formatting page and setting Margins, converting files to different formats, Importing and Exporting documents,
- 1.1.5   Sending files to other
- 1.1.6   Using toolbars, Ruler, Using Icons, using help

1.2 Text Formatting and Saving File
- 1.2.1 New, Open, Close, Save, Save As,
- 1.2.2 Formatting Text:
- 1.2.2.1 Font Size, Font Style, Font Color, Use the Bold, Italic, and Underline
- 1.2.2.2 Change the Text Case
- 1.2.2.3 Line spacing, Paragraph spacing, Shading text and paragraph,
- 1.2.2.4 Working with Tabs and Indents,
- 1.2.2.5 Inserting custom Header and Footer, Inserting objects in the header and footer,
- 1.2.2.6 Add section break to a document, Multilevel numbering and Bulleting, Creating List, Customizing List style, Page bordering, Page background, Adding a Footnote, Adding Endnote

1.3 Working with Objects
- 1.3.1   Shapes, Clipart and Picture, Word Art, Smart Art
- 1.3.2   Columns and Orderings
- 1.3.3   Page Number, Date & Time Inserting Text boxes, Inserting symbols, Inserting Chart

1.4 Create Table
- 1.4.1   Working with Tables, Table Formatting, Table Styles, Alignment option, Merge and split option

1.5 Proofing the document
- 1.5.1   Check Spelling As You Type.
- 1.5.2   Mark Grammar Errors As You Type
- 1.5.3   Setting AutoCorrect Options

1.6 Printing
- 1.6.1 Page Setup, Setting margins, Print Preview, Print

UNIT2: **Excel**   **15**

2.1 Introduction to Excel-
- 2 .1.1 Introduction to Excel interface

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2.1.2 Understanding rows and columns

2.1.3 Naming Cells, Working with excel workbook and sheets

2.2 Formatting excel work book-

2.2.1 New, Open, Close, Save, Save As,

2.2.2 Formatting Text: Font Size, Font Style, Font Color, Use the Bold, Italic and Underline, Wrap text, Merge and Centre Currency, Accounting and other formats, Modifying Columns, Rows & Cells

2.3 Perform Calculations with Functions-

2.3.1 Creating Simple Formulas

2.3.2 Setting up your own formula

2.3.3 Date and Time Functions

2.3.4 Logical Functions

2.3.4 Lookup Functions

2.3.5 Functions Mathematical Functions

2.3.6 Text Functions

2.4 Sort and Filter Data with Excel-

2.4.1 Sort and filtering data,

2.4.2 Using number filter, Text filter, Custom filtering, Removing filters from columns, Conditional formatting

2.5 Create Effective Charts to Present Data Visually-

2.5.1 Inserting Column, Pie chart etc.

2.5.2 Create an effective chart with Chart Tool, Design, Format, and Layout options, Adding chart title, Changing layouts, Chart styles, Editing chart data range, Editing data series, Changing chart

2.6 Protecting and Sharing the work book-

2.6.1 Protecting a workbook with a password

2.6.2 Allow user to edit ranges

2.7 Printing-

2.7.1 Page Setup,

2.7.2 Setting margins

2.7.3 Print Preview

2.7.4 Print

UNIT3: **MS Power Point:** **15**

3.1 Setting Up PowerPoint Environment

3.1.1 New, Open, Close, Save, Save As Typing the text, Alignment of text,

3.1.2 Formatting Text: Font Size, Font Style, Font Color, Use the Bold, Italic, and Underline Cut, Copy, Paste, Select All, Clear text, Find &Replace Working with Tabs and Indents

3.2 Creating slides and applying themes

3.2.1 Inserting new slide, Changing layout of slide, Duplicating slides, Copying and pasting slide,

3.2.2 Applying themes to the slide layout, Changingtheme color, Slide background, Formatting slide
    background , Using slide views

3.3 Working with bullets and numbering
    3.3.1Multilevel numbering and Bulleting
    3.3.2 Creating List, Page bordering, Page background, Aligning text, Text directions, Columns option

3.4 Working with Objects
    3.4.1 Shapes, Clipart and Picture, Word Art, Smart Art
    3.4.2 Change the Order of Objects,
    3.4.3 Inserting slide header and footer
    3.4.4 Inserting Text boxes,
    3.4.5   Inserting shapes, using quick styles,
    3.4.6 Inserting   symbols, Inserting Chart, Inserting Hyperlinks and Action Buttons
    3.4.7 Edit Hyperlinks and Action Button

3.5 Working With Movies and Sounds
    3.5.1 Inserting Movie From a Computer File,
    3.5.2 Inserting Audio file, Audio Video

3.5.3 playback and format options, Video options, Adjust options, Reshaping and bordering Video

3.6 Animation and Slide Transition
    3.6.1 Default Animation
    3.6.2 Custom Animation
    3.6.3 Modify a Default or Custom Animation ,
    3.6.4 Reorder Animation Using Transitions
    3.6.5 Apply a Slide Transition, Modifying a Transition, Advancing to the Next Slide

3.7 Using slide Master
    3.7.1Using slide master
    3.7.2 Inserting layout Option, Creating custom layout
    3.7.3 Inserting place holders

3.7.4 Formatting place holders

3.8 Slide show option
    3.8.1 Start slide show
    3.8.2 Start show from the current slide
    3.8.3 Rehearse timing
    3.8.4 Creating custom slide show

3.9 Proofing and Printing
    3.9.1 Check Spelling As You Type

3.9.2 Setting AutoCorrect Options, Save as video, Save as JPEGFiles

    3.9.3 Save as PowerPoint Show file, Print Preview, Print

UNIT4: **MS-Access-**   **15**
4.1 Create Database
4.2Introduction,Planning a Database,
4.3 Access Screen,
4.4 Creating a New Database
4.5 Creating Tables
4.6 Working with Forms

4.7 Creating queries

4.8 Finding Information in Databases

4.9 Types of Reports

4.10 Printing & Print Preview

4.11 Importing data from other database viz, MS Excel etc.

References:

1. Comdex Information Technology course tool kit Vikas Gupta, WILEY Dreamtech,2005

2. The Complete Computer upgrade and repair book,3rd edition Cheryl A Schmidt, WILEY Dreamtech

3. Introduction to Information Technology, ITL Education Solutions limited, Pearson Education.

4. Microsoft Office for Dummies by Wallace Wang

5. Mastering Office 2016 by Lalit Mali, Notion Press

6. Microsoft Office for Dummies by Wallace Wang OpenOffice.org for DUMMIES by Gurdy Leete, Ellen Finkelstein and Mary Leete

AES's T. C. College (Autonomous), Baramati. CBCS Syllabus 2023 Pattern as per NEP 2020

CBCS Syllabus as per NEP 2020 for F.Y.BBA (Computer Application) (2023 Pattern)

Name of the Programme: BBA (Computer Application)

Programme Code: UBCA

Class: F.Y. BBA (C.A)

Semester: I

Course Type: VSC

Course Code: BCA-121-VSC

Course Title   : Networking

No. of Credits: 02

No. of Teaching Hours   : 30

Course Objectives:

1. Tounderstandvariouscomputernetworksandtechnologiesbehindnetworks
2. TostudyTCP/IPsuite.
3. TostudyroutingconceptalongwithRoutingprotocols
4. Tounderstandwirelessnetworkingconceptsandprotocols
5. To become familiar with layered communication architectures (OSI and TCP/IP).
6. To understand the concepts of reliable data transfer and how TCP implements these concepts.
7. To understand data transmission across the network through protocols.

Course Outcomes:

By the end of the course, students will be able to:

CO1. Independently understand basiccomputernetworksandtechnologiesbehindnetworks.

CO2. Enumerate the layers of the OSI model and TCP/IP.

CO3. LearnroutingconceptalongwithRoutingprotocols.

CO4. Getknowledgeofwirelessnetworkingconceptsandprotocols.

CO5. Identify thelayered communication architectures.

CO6. Describe the concepts of reliable data transfer and working of TCP

CO7. Understand data transmission across the network through protocols.

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Topics and Learning PointsTeaching Hours	

UNIT1: **IntroductiontoDataCommunicationandComputer Networks**   **06**

1.1   Overview of Basic Concepts and Components. Data Communication Characteristic, Data Representation, Data Flow, Network Criteria, Physical Structures and Topologies, Network Types- LAN, MAN, WAN

1.2   Internet

1.2.1 Concept of Intranet & Extranet

1.2.2 Internet Information Server (IIS)

1.2.3 World Wide Web(WWW)

1.2.4 Search Engine

1.2.5 Internet Service Providers (ISP)

1.3   Various types of Networks (only overview)

1.3.1 Connection Oriented N/W's Vs. Connectionless N/W'

1.3.2 Ethernet

1.3.3 Wireless LAN

UNIT2: **Principles of Layering Concept**   **10**

2.1   Need for Layering

2.2   ISO-OSI 7 Layer Model

2.3   TCP/IP Model

2.4   Comparison of ISO-OSI&TCP/IP Model

2.5   Physical Communication:

2.5.1 Hardware Architecture

2.5.2 Transmission Media (Guided and Unguided
               i.e.Twisted Pair, Coaxial Cable, Fiber Optics, Wireless Transmission etc.)

2.5.3 Communication Devices

2.5.4 Switching and its Types
 (Circuit Switching, Message Switching, Packet Switching)

UNIT 3: **IP Addressing & Routing**   **08**

3.1   Internet Protocol and IPv4 Packet Format

3.2   Addressing, Physical Addresses, Logical Addresses
        Port Addresses, Specific Addresses

3.3   IP Address- Network Part and Host Part

3.4   Network Masks, Network Addresses and,
        Broadcast Addresses, Loop Back Address

3.5   Address Classes

3.6   TCP and UDP Connections

3.7   Overview of IPv6

Notes: Examples based on IP addressing to be covered

UNIT 4: **Network Applications**   **06**

4.1 Hyper Text Transfer Protocol (HTTP), HTTP communications –HTTP request, Request, Headers, Responses, Status Code, Error Status Code

4.2 Email- Sending & Receiving Email, Email, Addressing, Message Structure, SMTP – Simple Mail Transfer Protocol, POP – Post Office Protocol, IMAP- Internet Message Access Protocol, FTP- File Transfer Protocol

References:

1. Data Communications and Networking – Behrouz A. Forouzan, Fourth Edition TMH, 2006

2. Computer Networks -- Andrew S Tanenbaum, 4th Edition, Pearson Education.

3. Computer Networking: A Top-Down Approach Featuring the Internet,James F.Kurose, K.W.Ross, 3rd Edition,Pearson Education.

4. Computer and Communication Networks, Nader F. Mir, Pearson Education

5. An Engineering Approach to Computer Networks-S.Keshav, 2nd Edition,Pearson Education

CBCS Syllabus as per NEP 2020 for F.Y.BBA (Computer Application) (2023 Pattern)

Name of the Programme: BBA (Computer Application)

Programme Code: UBCA

Class: F.Y. BBA (C.A)

Semester: I

Course Type: SEC

Course Code: BCA-126-SEC

Course Title   : MS-Excel Skills for Business

No. of Credits: 02

No. of Teaching Hours   : 60

Course Objectives:

1. To Master the skills of working with: diagrams, Microsoft Excel and sorts

2. To build a solid understanding on the Basics of Microsoft Excel.

3. To learn how to use this software confidently

4. To understand the fundamental functions of Excel: the user interface of Excel, the basic terminology of Excel.

5. To gets the skill of working with formulas and functions.

6. To construct formulas, including the use of built-in functions, and relative and absolute references.

7. To Design professional and attractive charts used for reporting purpose

Course Outcomes:

By the end of the course, students will be able to:

CO1. Seize the basic foundational functions of Excel: the Excel user interface, the basic terminology of Excel.

CO2. Learns how to write them, use them to perform calculations

CO3. Uses font formatting, borders, alignment, number formatting, and Excel styles and themes

CO4. Extracts and modifies data with search and replace, uses conditional formatting to highlight specific data

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CO5. Optimises a spreadsheet for printing by managing margins, orientation, headers and footers, and more.

CO6. Creates and edits charts in Excel.

CO7. Customize the formatting of charts in Excel.

Topics and Learning PointsTeaching Hours

UNIT 1:   **Introduction to MS- Excel:**   **04**
> 1.1 Introduction
> 1.2 What is MS-Excel?
> 1.3 Why Should I Learn Microsoft Excel?
> 1.4 How to Open Microsoft Excel?
> 1.5 Understanding the Ribbon
> 1.6 Understanding the worksheet
> 1.7 Customization Microsoft Excel Environment
> 1.8 Important Excel shortcuts
> 1.9 Printing and Protecting Worksheet

UNIT 2:   **Modifying a worksheet in an MS-Excel:**   **05**
> 2.1 Modifying operations on worksheet
> 2.2 Moving and Copying Data in an Excel Worksheet
> 2.3 Inserting and Deleting Rows and Columns, Range
> 2.4 Changing the Width and Height of Cells
> 2.5 Hiding and Un hiding Excel Rows and Columns
> 2.6 Renaming an Excel Worksheet
> 2.7 Deleting an Excel Worksheet
> 2.8 Moving and Copying Formulas
> 2.9 Cell and Edit Commands

UNIT 3:   **Formatting Data in an Excel Worksheet**   **05**
> 3.1 Formatting Data Commands in Excel
> 3.2 Working with Font Formatting Commands
> 3.3 Changing the Background Color of a Cell
> 3.4 Adding Borders to Cells
> 3.5 Excel Cell Borders Continued
> 3.6 Formatting Data as Currency Values
> 3.7 Formatting Percentages
> 3.8 Using Excel's Format Painter
> 3.9 Creating Styles to Format Data
> 3.10 Merging and Centering Cells
> 3.11 Using Conditional Formatting
> 3.12 Editing Excel Conditional Formatting

UNIT 4:   **Data Validation in MS-Excel**   **05**
> 4.1 Data Validation Operations:
>> 4.1.1 Data validation
>> 4.1.2 Data filters
>> 4.1.3 Group and Ungroup
>> 4.1.4 Adding images to spreadsheets

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UNIT 5:   MS-Excel Formulas and Function   06

    5.1 Basic of formulas and function:

        5.1.1 What is Formulas in Excel?

        5.1.2 Mistakes to avoid when working with formulas in Excel

        5.1.3 What is Function in Excel?

        5.1.4 The importance of functions

    5.2 Formulas and Functions in an Excel:

        5.2.1 Common functions:

            SUM,MIN,MAX,AVARAGE,COUNT,LEN,SUMIF,AVARAGEIF,DAYS, NOW

        5.2.2 Numeric Functions:

            ISNUMBER,RAND,ROUND,MEDIAN,PI,POWER,MOD

        5.2.3 String functions:-

            LEFT,RIGHT,MID,ISTEXT,FIND,REPLACE,CONCATENATE

        5.2.4 Date Time functions:

            DATE,DAYS,MONTH,MINUTE,YEAR

        5.2.5 Lookup function

            VLOOKUP,HLOOKUP

        5.2.6 Logical functions:

            IF,AND,OR

Unit6   Creating Basic Charts in an MS-Excel   05

    6.1 What is a chart?

    6.2 Types of Charts in MS Excel.

    6.3 The importance of charts

    6.4 Working with the MS-Excel Chart Ribbon

        6.4.1   Adding and Modifying Data on an MS-Excel Chart

        6.4.2   Formatting an MS-Excel Chart

References:

1. Excel Formulas and functions 2020: the step by step excel Guide with example by ADAM RAMIREZ.

2. Simple Excel Functions by Bryan Crosland.

3. Excel 2019 All-In-One:Master the new features of excel 2019 By Lokesh Lalwani..

4. Microsoft excel 2019: Data Analysis and Business Model, 6th edition By Winston Wayne.

5. Excel for Beginners by M.L. Humphrey, independently published.

6. Excel All-in-One For Dummies (For Dummies (Computer/Tech) by Paul McFedriel.

7. Excel 2019 Bible ,1th edition by Michael Alexander, Wiley pub.

AES's T. C. College (Autonomous), Baramati. CBCS Syllabus 2023 Pattern as per NEP 2020

CBCS Syllabus as per NEP 2020 for F.Y.BBA (Computer Application) (2023 Pattern)

Name of the Programme: BBA (Computer Application)

Programme Code: UBCA

Class: F.Y. BBA (C.A)

Semester: I

Course Type: IKS

Course Code: BCA-137-IKS

Course Title   : Indian Innovations inComputer and Technology

No. of Credits: 02

No. of Teaching Hours   : 30

Course Objectives:

1. Creating awareness amongst the youths about the true history and rich culture of the country

2. Understanding the scientific value of the tradition and culture of the Bhārata

3. Promoting the youths to do research in the various fields of Bhāratīya knowledge tradition

4. Converting the Bhāratīya wisdom into the applied aspect of the modern scientific paradigm

5. Adding career, professional and business opportunities to the youths.

Course Outcomes:

It is expected that after completing this course the students would be quite aware of the richand versatile knowledge system and cultural heritage of Bhārata. They will be clear about thefollowing points:

CO1. The knowledge system was developed during the Vedic period, the Saraswatī-Sindhu Civilization, the Middle ages and practiced knowingly or unknowingly till date

CO2. In Bhārata, a special attention was given to the reasons of ideas occurrence, and connection with the concept of material world, and religious, social, and cultural beliefs.

CO3. They will be competent enough to choose the IKS as career at the professional and business levels.

CO4. Awareness amongst the youths about the true history and rich culture of the country.

CO5. The youth will be an individual with a great sense of patriotism and nation-pride.

CO6. The youths will be self-motivated to do research in the various fields of Bhāratīya knowledge tradition.

CO7. The students would be able to convert Bhāratīya wisdom into the applied aspect of the modern scientific paradigm.

Topics and Learning Points	Teaching Hours
UNIT1: Bhāratīya Civilization and Development of Bhartiya Knowledge System 1.1 Genesis of the land, Antiquity of civilization, On the Trail of the Lost River 1.2 Discovery of the Saraswatī River, the Saraswatī-Sindhu Civilization 1.3 Traditional Knowledge System 1.4 The Vedas, Main Schools of Philosophy(6+3) 1.5 Ancient Education System 1.6 the Takṣaśilā University 1.7 the Nālandā University 1.8 Alumni 1.9 Knowledge Export from Bhārata.	08
UNIT2: Ancient Bhartiya Contribution towards Science & Mathematics 2.1 Concept of Matter 2.2 Life and Universe, Gravity 2.3 Sage Agastya's Model of Battery 2.4 Velocity of Light 2.5 Vimāna: Aeronautics 2.6 Vedic Cosmology and Modern Concepts, hāratīyaKāla-gaṇanā, 2.7 Kerala School for Mathematics and 2.8 Astronomy, History andCulture of Astronomy, Sun, Earth, Moon, and Eclipses 2.9 Earth is Spherical andRotation of Earth, 2.10 Archaeostronomy 2.11 Concepts of Zero and Pi,Number System, Pythagoras Theorem, and Vedic Mathematics.	08
UNIT3: Ancient Bhartiya Engineering, Technology & Architecture 3.1 Pre-Harappan and Sindhu Valley 3.2 Civilization, Laboratory and Apparatus, Juices,Dyes,Paints and Cements, Glass and Pottery, Metallurgy, 3.3 Engineering Science and Technology in the Vedic Age and Post-Vedic Records, 3.4 Iron Pillar of Delhi, Rakhigarhi, Mehrgarh,	08

3.5 Sindhu Valley Civilization,

3.6 Marine Technology, and Bet–Dwārkā.

UNIT4: **Evolution in Computer and Indian Contribution** **06**
in Computer and Technology

4.1 Early Computing Devices,

4.2 generations of computer,

4.3 evolutions of programming Languages

4.4 Indian contribution in computer and technology:

    4.4.1 Pentium chip by Vinod Dham,

    4.4.2 Hotmail by Sabeer Bhatia,

    4.4.3 Universal Serial Bus (USB) by Ajay Bhatt,

    4.4.4 Fibre Optics by Dr. Narinder Singh Kapany,

    4.4.5 first supercomputer by Vijay Bhatkar,

4.5 Major information technology hubs in india,

4.6 Major data centre hubs in india,

References:

1. Textbook on The Knowledge System of Bhārata by Bhag Chand Chauhan, Under Publication (2021).

2. History of Science in India Volume-1, Part-I, Part-II, Volume VIII, by Sibaji Raha, et al.National Academy of Sciences, India and The Ram krishan Mission Institute of Culture,Kolkata (2014).

3. History of Science in India Volume-1, Part-I, Part-II, Volume VIII, by Sibaji Raha, et al.National Academy of Sciences, India and The Ram krishan Mission Institute of Culture,Kolkata (2014).

4. Pride of India- A Glimpse of India's Scientific Heritage edited by Pradeep Kohle et al.Samskrit Bharati (2006).

Examination Pattern / Evaluation Pattern

Teaching and Evaluation (for Major, Minor, AEC, VEC, IKS courses)

Course Credits	No. of Hours per Semester Theory/Practical	No. of Hours per Week Theory/Practical	Maximum Marks	CE 40 %	ESE 60%
1	15 / 30	1 / 2	25	10	15
2	30 / 60	2 / 4	50	20	30
3	45 / 90	4 / 6	75	30	45
4	60 / 120	4 / 8	100	40	60

Teaching and Evaluation (for VSC, SEC & CC courses)

- Evaluation to be done by Internal & External Experts
- No descriptive end semester written examination
- Evaluation to be done at Department level preferably prior to commencement of Theory /Practical Examinations
- Evaluation to be done on the Skills gained by student