UCA 7

Sub. Code: 24UCA101

Programme Code:10	**Bachelor of Computer Applications**			
Title of the Paper	**Core Paper 1 – C Programming**			
Batch 2024-2027	**Hours / Week 5**	**Total Hours 75**	**Credits 4**	**Skill Development Employability**

Course Objectives

1. To train the student to the basic concepts of the C-programming language.
2. To provide exposure to problem-solving through programming and to develop programming skills.
3. To impart adequate knowledge of programming languages and problem-solving techniques.

Course Outcomes (CO)

K1 to K5	CO1	Developing programs using the control statements, Arrays and Strings.
	CO2	Understanding about the code reusability with the help of user defined functions.
	CO3	Developing programs using pointer, enumerated data types, function, Union and nested structures.
	CO4	Learning the file handling mechanism that is essential for storing and accessing data.
	CO5	Determine efficient techniques in programming to solve various real time problems.

Sub. Code: 24UCA1CL

Programme Code: 10	**Bachelor of Computer Applications**			
Title of the Paper	**Core Practical 1 - C Programming Lab**			
Batch 2024-2027	**Hours / Week 5**	**Total Hours 75**	**Credits 3**	**Skill Development Employability Entrepreneurship**

Course Objectives

1. To introduce C Programming concepts to develop the programming knowledge.
2. To enhance their analyzing and problem-solving skills and use the same for writingprograms in C.
3. To guide the candidates to explore the fundamental building blocks in the programming language.

Course Outcomes (CO)

K3 to K5	CO1	Learning process helps in deep understanding the concepts of C language.
	CO2	Applying the various basic programming constructs like decision making statements, looping statements, functions, structures, pointers etc.,
	CO3	Developing programs using control statements, Arrays and Strings.
	CO4	Enabling effective usage of arrays, structures, functions and pointers.
	CO5	Implementing the files and command line arguments.

Sub.Code: 24UCA202

Programme Code: 10	**Bachelor of Computer Applications**			
Title of the Paper	**Core Paper 2 – Object Oriented Programming with C++**			
Batch 2024-2027	**Hours / Week 5**	**Total Hours 75**	**Credits 4**	**Skill Development Employability**

Course Objectives

1. To perform object- oriented programming to develop solutions to problems demonstrating usageof control structures, modularity, I/O and other standard language constructs.
2. To develop an in-depth understanding of functional, logic, and object-oriented programming paradigms.
3. To program using more advanced OOP's features such as objects, operator overloading, dynamicmemory allocation, inheritance and polymorphism, File I/O.

Course Outcomes (CO)

K1 to K5	CO1	Understanding the features of C++ Programming.
	CO2	Understanding the advanced features of C++ specifically, Operator Overloading, Templates, Streams.
	CO3	Applying the major object-oriented concepts to implement programs, Inheritance and Polymorphism
	CO4	Implementing different Operations on Functions, Classes & Object, and Constructors.
	CO5	Evaluate the usage of object oriented programming in terms of software reuse and managing complexity to solve real-world problems.

Sub.Code: 24UCA2CM

Programme Code: 10	**Bachelor of Computer Applications**			
Title of the Paper	**Core Practical 2 – Object Oriented Programming with C++ Lab**			**Skill Development Employability Entrepreneurship**
Batch 2024-2027	**Hours / Week 5**	**Total Hours 75**	**Credits 3**	

Course Objectives

1. To develop programming skills using object - oriented concepts.
2. To develop the ability to write a program to solve specific problems.
3. To practice the fundamental methodology to implement file and I/O stream concepts.

Course Outcomes (CO)

K3 to K5	CO1	Apply the various basic programming constructs like decision making statements, Looping statements, functions, concepts like overloading, inheritance, polymorphism, virtual functions, constructors and destructors.
	CO2	Designing programs using appropriate predefined functions and classes in C++.
	CO3	Developing applications using Friend functions, Inheritance and polymorphism.
	CO4	Developing a C++ application using the concepts of Templates, stream I/O, Files and usage of the available classes to handle stream objects.
	CO5	Evaluate the implementation of command line arguments.

Sub.Code: 24UCA303

Programme Code:10	**Bachelor of Computer Applications**		
Title of the Paper Programming	**Core Paper 3 – Data Structures with Java**		**Skill Development Employability**
Batch 2024-2027	**Hours / Week 4**	**Total Hours 60**	**Credits 5**

Course Objectives

1. To obtain the basic knowledge of Data Structures and Object-Oriented Programming using the core Java programming language.
2. To understand the fundamentals of Constructors, Method Overloading, Arrays and Error handling mechanisms in Java and gaining knowledge about Stack and Queue, Sorting Techniques using Data Structures.
3. To inculcate the principles of Interfaces, Packages, Applets, Graphics Programming in Java and concepts in data structures such as Linked lists, Trees and Graphs.

Course Outcomes (CO)

K1 to K5	CO1	Acquiring knowledge java programming language for various programming technologies using data structure concepts.
	CO2	Understanding and applying concepts of Overloading and Interface. Arrays and Exception handling in java programming language.
	CO3	Analyzing the concepts of Stack, Queue with Sorting Techniques.
	CO4	Implementing java concepts with Linked lists, Trees and Sorting Techniques.
	CO5	Evaluating the types of graphs with relevant case studies.

Sub.Code: 24UCA3CN

Programme Code : 10	**Bachelor of computer applications**			
Title of the paper : Core Practical 3 – Data Structure with Java Programming Lab				
Batch 2024-2027	**Hours / Week 4**	**Total Hours 60**	**Credits 4**	**Skill Development Employability Entrepreneurship**

Course Objectives

1. To understand the use of Data Structures and Java Programming.
2. To apply the principle concepts of data structures in Java.
3. To analyze the techniques followed in this practical paper.

Course Outcomes (CO)

K3 to K5	CO1	Designing the basic concepts of Data structures and Java Programming.
	CO2	Implementing types of search in data structures using Java.
	CO3	Validating the various fundamental concepts of Stack and Queue.
	CO4	Implementing concepts of linked lists and sorting techniques.
	CO5	Evaluate the nodes and Tree concepts

Sub. Code : 24UCA404

Programme Code : 10	Bachelor of Computer Applications		
Title of the Paper : Core Paper 4 – .NET Framework with Oracle			
Batch 2024-2027	**Hours / Week** 4	**Total Hours** 60	**Credits** 4	**Skill Development Employability**

Course Objectives

1. To design and develop the distributed event driven programming in both VB and .Net framework.
2. To analyze the Properties, Events and Methods CLR,
3. To apply .NET framework classes in .Net Environment.
4. To develop the knowledge in various Database concepts, queries, normalization and reports.
5. To be able to construct a new normalized database.

Course Outcomes (CO)

K1 to K5	CO1	Remember the basic Visual basic concepts and advanced features of VB.Net.
	CO2	Understand the concepts of .Net framework Technology and summarize the advantages and disadvantages of .Net framework.
	CO3	Apply the windows forms and menu contols using VB.Net.
	CO4	Apply various DDL and DML statements, joins queries, PL / SQLstatements.
	CO5	Analyze the granting and revoking permissions in cursors and Normalization forms.

Sub. Code: 24UCA4CO

Programme Code : 10	Bachelor of Computer Applications			
Title of the Paper	Core Practical 4 – .Net Framework with Oracle Lab			Skill Development Employability Entrepreneurship
Batch 2024 - 2027	Hours / Week 5	Total Hours 75	Credits 3	

Course Objectives

1. To make the students to develop the database projects with a back end concept.
2. To construct .NET applications and to maintain the database.
3. To familiarize the students in crystal report creation.
4. To Construct the queries using DDL and DML queries and execute the console, window application, crystal report, PL/SQL triggers.
5. Apply the connectivity to retrieve the data from database.

Course Outcomes (CO)

K2 K3 K2	CO1	Apply the decision and control structures in .NET and apply the concepts of queries and creation of console applications.
	CO2	Analyze the concept of windows application and project creation and Oracle functions.
	CO3	Construct the queries using DDL and DML queries.
	CO4	Execute the console, window application, crystal report, PL/SQL triggers.
	CO5	Apply the connectivity to retrieve the data from database.

Sub.Code : 24UCA4A4

Programme Code:10	Bachelor of Computer Applications			
Title of the Paper : Allied Paper 4 : Distributed Operating System				
Batch 2024-2027	Hours/Week 5	Total Hours 75	Credits 5	Skill Development Employability

Course objective

1. To Describe basic concepts of Operating System and Computer Networks.
2. To understand about naming, security, distributed file system.
3. To understand about message passing, remote procedure calls.
4. Understand the need of distributed shared memory, synchronization.
5. Understand the scope of resource, process management.

Course Outcome

K1 TO K5	CO1	Gain knowledge of distributed operating system architecture (Knowledge)
	CO2	Illustrate principles and importance of distributed operating system (Understand)
	CO3	Implement distributed client server applications using remote method invocation (Apply)
	CO4	Distinguish between centralized systems and distributed systems (Analyze)
	CO5	Create stateful and state-less applications (Create)

Sub.Code: 24UCA505

Programme code : 10	**Bachelor of Computer Applications**			
Title of the paper	**Core Paper 5– Software Engineering**			
Batch 2024-2027	**Hours / Week 6**	**Total Hours 90**	**Credits 4**	**Skill Development Employability**

Course Objectives

1. To understand the basic theory of Software Engineering.
2. To describe software engineering layered technology and Process frame work.
3. To gain knowledge about quality control and how to ensure good quality software.

Course Outcomes (CO)

K1 to K5	CO1	Learning the fundamentals of software engineering concepts.
	CO2	Understanding common lifecycle processes such as waterfall model, spiral model, prototyping model, evolutionary models etc.,
	CO3	Applying the principles and techniques of software engineering in the architectural design, detail design, and implementation of software applications.
	CO4	Developing the software using different testing concepts.
	CO5	Evaluating the ability of students to perform various lifecycle activities like Analysis, Design, Implementation, Testing and Maintenance.

Sub Code: 24UCA506

Programme code:10	Bachelor of Computer Applications		
Title of the Paper: Core Paper 6 – Data Mining with R Programming			
Batch 2024-2027	Hours / Week 5	Total Hours 75	Credit 4

Skill Development
Employability
Entrepreneurship

Course Objectives

1. To learn the basic concepts of Data Mining algorithms, methods and tools.
2. To develop and apply critical thinking, problem-solving, and decision-making skills
3. To expose the student to learn the fundamental concepts of R Programming.
4. This course is to equip the students to visualize and analyses the data using R and to communicate statistical results in correct manner

Course Outcomes (CO)

K1 to K5	CO1	Knowing the data mining principles and techniques.
	CO2	Understanding the concept of raw data processing using data mining algorithms.
	CO3	Understand the basics in R programming in terms of constructs, control statements, string functions
	CO4	Create reports using R design and write efficient programs using R (and similar high-level languages) to perform routine and specialized data manipulation/management and analysis tasks
	CO5	Document analytical workflow using R, markdown languages, and version control

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Sub.Code: 24UCA507

Programme code:10	Bachelor of Computer Applications			
Title of the Paper:	Core Paper 7 – Artificial Intelligence and Expert System			
Batch 2024-2027	Hours / Week 6	Total Hours 90	Credit 4	Skill Development Employability Entrepreneurship

Course Objectives

1. To learn the concepts of Artificial Intelligence.
2. Create awareness of informed search and exploration methods.
3. To demonstrate AI techniques for knowledge representation, planning and uncertainty management.

Course Outcomes (CO)

K1 to K5	CO1	Understand the concept of AI
	CO2	Analyze and evaluate informed search and exploration methods.
	CO3	Apply AI techniques for knowledge representation, planning and uncertainty Management.
	CO4	Analyze and develop knowledge of decision making and learning methods for real time application
	CO5	Explore how AI is already being used and evaluate problem areas of AI

Sub Code: 24UCA5C

Programme code:10	Bachelor of Computer Applications			
Title of the Paper Core Practical 5 - Data Mining with R Programming Lab				
Batch 2024- 2027	Hours / Week 6	Total Hours 75	Credits 3	Skill Development Employability Entrepreneurship

Course Objectives

1. Perform analytics using R programming.
2. Manipulate data within R and to create simple graphs and charts used in introductory statistics
3. Perform and interpret different distribution using R
4. Use R Graphics and Tables to visualize results of various statistical operations on data

Course Outcomes (CO)

K3 to K5	CO1	Understand the basics in R programming in terms of constructs, control statements, string functions
	CO2	To be able to understand the various data structures available in R programming language and apply them in solving computational problems.
	CO3	Understand the use of R for Big Data analytics.
	CO4	Extract data from files and other sources and perform various data manipulation tasks on them.
	CO5	Apply the R programming from a statistical perspective

Syllabus

Sub.Code: 24UCA60B

Programme Code:10	Bachelor of Computer Applications		
Title of the Paper	Core Paper 8 -Web Designing		Skill Development Employability Entrepreneurship
Batch 2024-2027	Hours / Week 5	Total Hours 75	Credits 4

Course Objectives

1. To understand website development in a user-friendly manner.
2. To improve the visual design and content structuring.
3. To understand the concept of Bootstrap to develop their web development skill.

Course Outcomes (CO)

K1 to K5	CO1	Understanding the use of HTML tags.
	CO2	Acquiring knowledge of Cascading Style Sheet.
	CO3	Analyzing the concepts of JavaScript.
	CO4	Applying the knowledge to perform calculations using various operators and built-in functions.
	CO5	Evaluate the web application using HTML, CSS, JavaScript and Bootstrap.

UCA 43

Sub.Code: 24UCA609

Programme Code:10	Bachelor of Computer Applications			
Title of the Paper	Core Paper 9 – Python Programming			
Batch 2024-2027	Hours / Week 5	Total Hours 75	Credits 4	Skill Development Employability Entrepreneurship

Course Objectives

1. To acquire programming skills in core Python and to learn and understand Python programming basics and paradigm
2. To Learn core Python scripting elements such as variables and flow control structures
3. To learn and understand python looping, control statements and string manipulations.
4. To learn how to use exception handling in Python applications for error handling.
5. To use Python data structures, lists, tuples, dictionaries.
6. To do input/output with files in Python.

Course Outcomes (CO)

K3 to K5	CO1	Develop algorithmic solutions to simple computational problems and Read, write, execute byhand simple Python programs.
	CO2	Structure simple Python programs for solving problems.
	CO3	Decompose a Python program into functions and Discover how to work with lists andsequence data.
	CO4	Represent compound data using Python lists, tuples, dictionaries.
	CO5	Read and write data from/to files in Python Programs.

UCA 46

Sub.Code: 24

Programme Code:10	Bachelor of Computer Applications			
Title of the Paper: Core Paper 10 – Data Science				Skill Development Employability
Batch 2024-2027	Hours / Week 5	Total Hours 75	Credits 4	

Course Objectives

1. To learn about basics of Data Science and Big data.
2. To learn about overview and building process of Data Science.
3. To learn about various Algorithms in Data Science.
4. To learn about Hadoop Framework.
5. To learn about case study about Data Science.

Course Outcome

K1 to K5	CO1	Understand the basics in Data Science and Big data
	CO2	Understand overview and building process in Data Science.
	CO3	Understand various Algorithms in Data Science.
	CO4	Understand Hadoop Framework in Data Science.
	CO5	Case study in Data Science.

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Syllabus

Sub.Code: 24UCA6(

Programme Code:10	Bachelor of Computer Applications			
Title of the paper: Core Practical 6- Web Designing Lab				Skill Develop Employabilit Entrepreneur
Batch 2024-2027	Hours / Week 6	Total Hours 90	Credits 3	

Course Objectives

1. To implement the concepts in visual design and content structuring.
2. To understand the concept of Bootstrap to develop their web development skill.
3. To facilitate students to create a website using HTML and Bootstrap.

Course Outcomes (CO)

K3 to K5	CO1	Applying the HTML tags to design Web Pages.
	CO2	Designing attractive web sites using Cascading Style Sheet.
	CO3	Developing user friendly interactive web application using JavaScript.
	CO4	Implementing different operations on JavaScript Functions and Events.
	CO5	Evaluating the functionality of web pages using HTML, CSS, JavaScript and Bootstrap.

UCA 50

Project and Viva-Voce

Sub.Code: 24UCA6Z1

Programme Code:10	Bachelor of Computer Applications		
Core Project – Project and Viva – Voce ***			
Batch 2024-2027	Hours/Week 2	Total Hours 30	Credits 5	Skill Development Employability Entrepreneurship

Course Objectives

1. To acquire the knowledge about selecting the task based on their course skills.
2. To get the knowledge about analytical skill for solving the selected task.
3. To get confidence by implementing the task in a real time project.

Course Outcomes (CO)

K3 to K5	CO1	Apply the programming skills for solving the project.
	CO2	Analyze the task and to collect the necessary information about the software.
	CO3	Evaluate the task based on the software.
	CO4	Test the project for its successful implementation
	CO5	Implement and Maintain the developed system.

UCA 53

Programme Code:10	Bachelor of Computer Applications			
Title of the Paper	Major Elective – Multimedia Systems			
Batch 2024-2027	Hours / Week 5	Total Hours 75	Credits 5	Skill Development Employability Entrepreneurship

Course Objectives

1. Understand the definition of Multimedia
2. To study about the Image File Formats, Sounds Audio File Formats
3. Understand the concepts of Animation and Digital Video Containers
4. To study about the Stage of Multimedia Project
5. Understand the concept of Ownership of Content Created for Project Acquiring Talent

Course Outcomes (CO)

K1toK5	CO1	To Understand the Concepts of Cyber crime and Cyber Frauds
	CO2	To Know about Cyber Terrorism and its preventive measures
	CO3	To Analyze about the Internet, Mobile Phone and E-commerce, security issues
	CO4	To Understand about E-mail and Social Media Issues
	CO5	To Describe about various legal responses to Cybercrime

Programme Code:10	Bachelor of Computer Applications			
Title of the Paper: Major Elective – Software Project Management				
Batch 2024-2027	Hours / Week 5	Total Hours 75	Credits 5	Skill Development Employability Entrepreneurship

Course Objectives

1. To Understand the fundamental principles of Software Project management
2. To know the different methods and techniques used for project management.
3. To perform Project Scheduling, tracking, Risk analysis, Quality management and Project Cost estimation using different techniques.

Course Outcomes (CO)

K1	CO1	Understanding the fundamentals of Software Project Management, Phases & Models involved in developing the software.
K2	CO2	Obtaining Project Quality, SQA's Role and Risks.
K3	CO3	Analyzing the Requirements & Software Estimation.
K4	CO4	Maintaining the Software for later implementation.

UCA 50

Project and Viva-Voce

Sub.Code: 24UCA6Z1

Programme Code:10	**Bachelor of Computer Applications**			
Core Project – Project and Viva – Voce ***				
Batch 2024-2027	**Hours/Week** 2	**Total Hours** 30	**Credits** 5	**Skill Development Employability Entrepreneurship**

Course Objectives

1. To acquire the knowledge about selecting the task based on their course skills.
2. To get the knowledge about analytical skill for solving the selected task.
3. To get confidence by implementing the task in a real time project.

Course Outcomes (CO)

K3 to K5	CO1	Apply the programming skills for solving the project.
	CO2	Analyze the task and to collect the necessary information about the software.
	CO3	Evaluate the task based on the software.
	CO4	Test the project for its successful implementation
	CO5	Implement and Maintain the developed system.

UCA 53

Programme Code:10	Bachelor of Computer Applications			
Title of the PaperMajor Elective – Multimedia Systems				
Batch 2024-2027	Hours / Week 5	Total Hours 75	Credits 5	Skill Development Employability Entrepreneurship

Course Objectives

1. Understand the definition of Multimedia
2. To study about the Image File Formats, Sounds Audio File Formats
3. Understand the concepts of Animation and Digital Video Containers
4. To study about the Stage of Multimedia Project
5. Understand the concept of Ownership of Content Created for Project Acquiring Talent

Course Outcomes (CO)

K1toK5	CO1	To Understand the Concepts of Cyber crime and Cyber Frauds
	CO2	To Know about Cyber Terrorism and its preventive measures
	CO3	To Analyze about the Internet, Mobile Phone and E-commerce, security issues
	CO4	To Understand about E-mail and Social Media Issues
	CO5	To Describe about various legal responses to Cybercrime

Programme Code:10	Bachelor of Computer Applications			
Title of the Paper: Major Elective – Software Project Management				
Batch 2024-2027	Hours / Week 5	Total Hours 75	Credits 5	Skill Development Employability Entrepreneurship

Course Objectives

1. To Understand the fundamental principles of Software Project management
2. To know the different methods and techniques used for project management.
3. To perform Project Scheduling, tracking, Risk analysis, Quality management and Project Cost estimation using different techniques.

Course Outcomes (CO)

K1	CO1	Understanding the fundamentals of Software Project Management, Phases & Models involved in developing the software.
K2	CO2	Obtaining Project Quality, SQA's Role and Risks.
K3	CO3	Analyzing the Requirements & Software Estimation.
K4	CO4	Maintaining the Software for later implementation.

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Programme Code:10	Bachelor of Computer Applications			
Title of the Paper: Major Elective – Fuzzy Logic				
Batch 2024-2027	Hours / Week 5	Total Hours 75	Credits 5	Skill Development Employability Entrepreneurship

Course Objectives

1. To understand the basic concept of Fuzzy logic
2. To learn the various operations on relation properties
3. To study about the membership functions
4. To learn about the Defuzzification and Fuzzy Rule-Based System
5. To learn the concepts of Applications of Fuzzy Logic

Course Outcomes (CO)

K1toK5	CO1	Understand the basics of Fuzzy sets, operation and properties.
	CO2	Apply Cartesian product and composition on Fuzzy relations and use the tolerance and Equivalence relations.
	CO3	Analyze various fuzzification methods and features of membership Functions.
	CO4	Evaluate defuzzification methods for real time applications.
	CO5	Design an application using Fuzzy logic and its Relations

UCA 61

Programme Code:10	Bachelor of Computer Applications			
Title of the Paper: Major Elective – Information Security				
Batch 2024-2027	Hours / Week 5	Total Hours 75	Credits 5	Skill Development Employability Entrepreneurship

Course Objectives

1. To enable the students to learn fundamental concepts of Computer Security.
2. To provide an understanding of principal concepts, technologies and basic approaches in information security.
3. To understand the concepts of security policies such as authentication, integrity and confidentiality.

Course Outcomes (CO)

K1 to K5	CO1	Studying the basic concepts of security.
	CO2	Understanding the issues and technologies in information security.
	CO3	Learning various protection mechanisms.
	CO4	Analyzing tools and technology for combating threats to information assets.
	CO5	Evaluate the usage of Legal and Ethical Issues in Computer Security.

Programme Code:10	Bachelor of Computer Applications			
Title of the Paper: Major Elective – Block Chain				
Batch 2024-2027	Hours / Week 5	Total Hours 75	Credits 5	Skill Development Employability Entrepreneurship

Course Objectives

1. To introduce the technical aspects of public distributed ledgers, block chain systems,

Crypto currencies and smart contracts.

2. Students will learn how these systems are built, how to interact with them, how to design and build secure distributed applications.

Course Outcomes (CO)

K1 to K5	CO1	Stating block chain technologies basics are made possible through learning Distributed Database and various types of database.
	CO2	Stating the Mining strategies followed in block chain teach the basic architecture behind the perfect building of block chain for industries.
	CO3	Classifying the limitations and proofs are another essential part of block chain technology, which are learned for betterment of creating block chain.
	CO4	Describing the history behind the block chain and learning about Vulnerability, Attacks and Side chain gives an additional support for creating a secured block chain.
	CO5	Design a method for solving a problem case study with different perspective.

Sub.Code:24UGC3S1

Programme Code:10	Bachelor of Computer Applications			
Title of the Paper	Skill Based Subject 1 – Cyber Security			
Batch 2024-2027	Hours / Week 2	Total Hours 30	Credits 3	Skill Development

Course Objectives

1. The course introduces the basic concepts of Cyber Security
2. To develop an ability to understand about various modes of Cyber Crimes and Preventive measures
3. To understand about the Cyber Legal laws and Punishments

Course Outcomes (CO)

K1 to K5	CO1	To Understand the Concepts of Cybercrime and Cyber Frauds
	CO2	To Know about Cyber Terrorism and its preventive measures
	CO3	To Analyze about the Internet, Mobile Phone and E-commerce security issues
	CO4	To Understand about E-mail and Social Media Issues
	CO5	To Describe about various legal responses to Cybercrime

Programme code : 10	Bachelor of Computer Applications			Sub.Code:24UCA4SL
Title of the paper :Skill Based subject 2 - Linux Programming Lab				
Batch 2024-2027	Hours / Week C 2	Total Hours 30	Credits 3	Skill Development

Course Objectives

1. To gain knowledge about the usage of shell scripting.
2. To teach the concepts of using arithmetic operations and looping.
3. To impart knowledge about the creation of files and directories.

Course Outcomes (CO)

K3 to K5	CO1	Applying the concepts of control structures in programming.
	CO2	Implementing the concepts of file operations in programming
	CO3	Analyzing the concept of dialog utilities in shell programming.
	CO4	Develop solutions for mathematical concept and propose appropriate result.
	CO5	Evaluate the programming techniques and tools to design computer programs.

24UBI6S3

COURSE OBJECTIVES

Programme Code: 10	*For B.A., BBA, B.Com,* **BCA** *and B.Sc., Degree Students*			
Skill Based Subject III - BASICS OF INTELLECTUAL PROPERTY RIGHT'S				
Batch 2024-2025	**Hours/ Week** 2	**TotalHours** 30	**Credits** 2	**Skill Development**

- To create awareness about recent trends in IPR and Innovation
- To explore the basic concepts IPR
- To focus upon trademarks, copyrights, patents, industrial designs and traditional knowledge.
- To learn more about managing IP rights and legal aspects.

COURSE OUTCOMES

On successful completion of the course, the students will be able to

K1	CO1	Know about basic concepts of IPR and patent
	CO2	Understand copyrights, industrial designs and geographical indication of goods.
	CO3	Differentiate between trademarks and trade secrets
	CO4	Acquire knowledge on parotection of traditional knowledge and plant varieties.
K5	CO5	Manage and protect IP Rights

Sub.Code: 24UCA5XL

Programme Code:10	**Bachelor of Computer Applications**			
Title of the Paper:Extra Departmental Course – Internet and Office Automation Lab				
Batch 2024-2027	**Hours / Week 2**	**Total Hours 30**	**Credits3**	**Skill Development Enterprenership/**

Course Objectives

1. To gain knowledge about the concepts of Internet
2. To understand the concepts of MS-Word, MS-Excel
3. To develop database using MS-Access and presentation using MS-PowerPoint

Course Outcomes (CO)

K3 to K5	CO1	Understanding and remember various menus in office automation
	CO2	Implementing the concepts of Internet techniques
	CO3	Executing various calculations of MS-Excel
	CO4	Analyzing the applications using MS-Power Point
	CO5	Applying the database components to develop table using MS-Access

For B.A., BBA, B.Com, BCA and B.Sc., Degree Students					24EVS101
PART IV – ENVIRONMENTAL STUDIES					
Batch 2024-2025	Semester I	Hours / Week 2	Total Hours 30	Credits 2	Skill Development

COURSE OBJECTIVES

- The course will provide students with an understanding and appreciation of the complex interactions of man, health and the environment. It will expose students to the multi-disciplinary nature of environmental health sciences
- To inculcate knowledge and create awareness about ecological and environmental concepts, issues and solutions to environmental problems.
- To shape students into good "Ecocitizens" thereby catering to global environmental needs.
- This course is designed to study about the types of pollutants including gases, chemicals petroleum, noise, light, global warming and radiation as well as pollutant flow and recycling and principles of environmental pollution such as air, water and soil
- The course will address environmental stress and pollution, their sources in natural and workplace environments, their modes of transport and transformation, their ecological and public health effects, and existing methods for environmental disease prevention and remediation.

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Programme Code : 10	Bachelor of Computer Applications			
Title of the Paper	Part IV : Value Education – Moral and Ethics**			
Batch 2023-2026	Hours / Week 2	Total Hours 30	Credits 2	Skill Development

Course Objectives

1. To impart Value Education in every walk of life.
2. To help the students to reach excellence and reap success.
3. To impart the right attitude by practicing self-introspection.
4. To portray the life and messages of Great Leaders.
5. To insist the need for universal brotherhood, patience and tolerance.
6. To help the students to keep them fit.
7. To educate the importance of Yoga and Meditation.

Course Outcomes (CO)

K1 to K5	CO1	Will be able to recognize Moral values, Ethics, contribution of leaders, Yoga and its practice
	CO2	Will be able to differentiate and relate the day to day applications of Yoga and Ethics in real life situations
	CO3	Can emulate the principled life of great warriors and take it forward as a message to self and the society
	CO4	Will be able to Analyze the Practical outcome of practicing Moral values in real life situation
	CO5	Could Evaluate and Rank the outcome of the pragmatic approach to further develop the skills

24VED201

Programme Code:	For B.A., BBA, B.Com, BCA and B.Sc., Degree Students		
VALUE EDUCATION – MORAL AND ETHICS			
Batch	Hours / Week	Total Hours	Credits
2024-2027	2	30	2

COURSE OBJECTIVES

- To impart Value Education in every walk of life.
- To help the students to reach excellence and reap success.
- To impart the right attitude by practicing self introspection.
- To portray the life and messages of Great Leaders.
- To insist the need for universal brotherhood, patience and tolerance.
- To help the students to keep them fit.
- To educate the importance of Yoga and Meditation.

COURSE OUTCOMES (CO)

After Completion of the Course the student will be able to

K1	CO1	will be able to recognize Moral values, Ethics, contribution of leaders, Yoga and its practice
↑	CO2	will be able to differentiate and relate the day to day applications of Yoga and Ethics in real life situations
↕	CO3	can emulate the principled life of great warriors and take it forward as a message to self and the society
↕	CO4	will be able to Analyse the Practical outcome of practicing Moral values in real life situation
↓	CO5	could Evaluate and Rank the outcome of the pragmatic approach to further develop the skills
K5		

UCA 86

Code : 10	*Students*			
PART IV –NON MAJOR ELECTIVE –I HUMAN RIGHTS				
Batch 2024-2025	**Hours / Week 2**	**Total Hours 30**	**Credits 2**	**Skill Development**

COURSE OBJECTIVES

- To prepare for responsible citizenship with awareness of the relationship between Human Rights, democracy and development.
- To impart education on national and international regime on Human Rights.
- To sensitive students to human suffering and promotion of human life with dignity.
- To develop skills on human rights advocacy
- To appreciate the relationship between rights and duties
- To foster respect for tolerance and compassion for all living creature.

COURSE OUTCOMES

After Completion of the Course the student will be able to

K1 ↑	CO1	To understand the hidden truth of Human Rights by studying various provisions in the Constitution of India.
	CO2	To acquire overall knowledge regarding the Feminist perspectives in the Liberative Empowerment of Women.
	CO3	To gain knowledge about various gender roles and stereotypes involved in the comprehension of gender equality and women's rights.
	CO4	To comprehend the legal provisions and policies that foreground the safety of children in the society and to promote awareness.
K5 ↓	CO5	To gain enhanced knowledge about sexual and gender minorities to recognize, celebrate and acknowledge the diversified forms of gender expressions and rights.

UCA 89

Code:	Part IV -NON- MAJOR ELECTIVE – II WOMEN'S RIGHTS			
Batch 2024-2025	Hours / Week 2	Total Hours 30	Credits 2	Skill Development

COURSE OBJECTIVES

- To know about the laws enacted to protect Women against violence.
- To impart awareness about the hurdles faced by Women.
- To develop a knowledge about the status of all forms of Women to access to justice.
- To create awareness about Women's rights.
- To know about laws and norms pertaining to protection of Women.
- To understand the articles which enables the Women's rights.
- To understand the Special Women Welfare laws.
- To realize how the violence against Women puts an undue burden on healthcare services.

COURSE OUTCOMES

After Completion of the Course the student will be able to

K1	CO1	Appraise the importance of Women's Studies and incorporate Women's Studies with other fields
↑	CO2	Analyze the realities of Women Empowerment, Portrayal of Women in Media, Development and Communication
↑	CO3	Interpret the laws pertaining to violence against Women and legal consequences
↑	CO4	Contribute to the study of the important elements in the Indian Constitution, Indian Laws for Protection of Women
K5	CO5	Spell out and implement Government Developmental schemes for women and create awareness on modernization and impact of technology on Women

UCA 91

Programme Code :	For B.A., B.Sc., and BCA Degree Students			
PART IV - NON- MAJOR ELECTIVE III - CONSUMER AFFAIRS				
Batch	Hours/Week	Total Hours	Credits	Skill Development
2024-2025	2	30	2	

COURSE OBJECTIVES

- To familiarize the students with their rights and responsibilities as a consumer.
- To understand the procedure of redress of consumer complaints.
- To know more about decisions on Leading Cases by Consumer Protection Act.
- To get more knowledge about Organizational set-up under the Consumer Protection Act
- To impart awareness about the Role of Industry Regulators in Consumer Protection
- To understand Contemporary Issues in Consumer Affairs

COURSE OUTCOMES

K1	CO1	Able to know the rights and responsibility of consumers.
↑	CO2	Understand the importance and benefits of Consumer Protection Act.
↕	CO3	Applying the role of different agencies in establishing product and service standards.
↓	CO4	Analyse to handle the business firms' interface with consumers.
K5	CO5	Assess Quality and Standardization of consumer affairs

PDC 1

SEMESTER I

SUB.CODE: 24PDC101

Programme code : 10	POST GRADUATE DIPLOMA IN COMPUTER APPLICATIONS		
Title of the paper	COMPUTER NETWORKS		
Batch 2024-2025	Hours / Week 3	Total Hours 30	Credits 3

Course Objectives

1. To deal with basic ideas of networking domain.
2. To present the principles of Cryptography in Computer Networks.
3. To know the classical, advanced encryption standards and techniques, message Authentication codes, digital signatures, email.

Course Outcomes (CO)

K1 to K5	CO1	Understanding cryptography and network security concepts and application.
	CO2	Applying security principle in system design.
	CO3	Detecting network security threats.
	CO4	Understanding the various cryptographic algorithms.
	CO5	Evaluating the challenges in building networks.

PDC 3

Programme code : 10	SUB.CODE: 24PDC102		
Title of the paper :	POST GRADUATE DIPLOMA IN COMPUTER APPLICATIONS RELATIONAL DATABASE MANAGEMENT SYSTEM		
Batch 2024-2025	Hours / Week 3	Total Hours 30	Credits 4

Course Objectives

1. To develop the knowledge in various Database concepts.
2. It also gives introduction to SQL language to retrieve the data from the database with suitable application development.
3. To be able to construct a new normalized database.

Course Outcomes (CO)

K1 to K5	CO1	Remember the basic concepts of database management systems and database techniques
	CO2	Understand Data constraints and CODDs rules, DML and DDL statements of ORACLE,
	CO3	Apply various DDL and DML statements, joins queries, PL / SQL statements.
	CO4	Analyze the granting and revoking permissions , cursors.
	CO5	Evaluating the challenges in building networks.

PDC 5

SUB.CODE: 24PDC1CL

Programme code : 10	POST GRADUATE DIPLOMA IN COMPUTER APPLICATIONS		
Title of the paper : RELATIONAL DATABASE MANAGEMENT SYSTEM LAB			
Batch 2024-2025	Hours / Week 3	Total Hours 30	Credits 4

Course Objectives

1. To understand the use of Structured Query Language (SQL) and its syntax.
2. To understand and apply the principles of data modeling using entity relationship and develop a good database design.
3. To study the concepts and techniques relating query processing using SQL engines.

Course Outcomes (CO)

K1 to K5	CO1	Designing the basic concepts of database.
	CO2	Implementing data integrity constraints in database.
	CO3	Validating the various fundamental tasks to perform data modeling.
	CO4	Implementing functions, packages, stored procedures and user defined exception.
	CO5	Evaluate the trigger function to perform event.

PDC 7

SUB.CODE: 24PDC[illegible]CM

Programme code : 10	POST GRADUATE DIPLOMA IN COMPUTER APPLICATIONS		
Title of the paper :	WEB DESIGNING LAB		
Batch 2024-2025	Hours / Week 3	Total Hours 30	Credits 4

Course Objectives

1. To understand the basic concepts principles involved in website development.
2. To gain Basic knowledge in HTML tags and skill of creating web pages.
3. To gain knowledge about internet and it applications.

Course Outcomes (CO)

K1 to K5	CO1	Learn and Visualize the basic concept of HTML.
	CO2	Understanding and Recognize the elements of HTML.
	CO3	Analyzing the principle and basics concept of Frameset.
	CO4	Applying the principles and techniques of web page creation.
	CO5	Evaluating the functionality of Web pages using HTML.

LIST OF PRACTICAL PROG[illegible]

PDC 9

SEMESTER II

SUB.CODE: 24PDC203

Programme code : 10	POST GRADUATE DIPLOMA IN COMPUTER APPLICATIONS		
Title of the paper :	SOFTWARE ENGINEERING		
Batch 2024-2025	Hours / Week 3	Total Hours 30	Credits 3

Course Objectives

1. To understand the basic theoryof Software Engineering.
2. To describe software engineering layered technology and Process frame work.
3. To gain knowledge about quality control and how to ensure good quality software.

Course Outcomes (CO)

K1 to K5	CO1	Learning the fundamentals of software engineering concepts.
	CO2	Understanding common lifecycle processes such as waterfall model, spiral model,prototyping model, evolutionary models etc.,
	CO3	Applying the principles and techniques of software engineering in the architectural design,detail design, and implementation of software applications.
	CO4	Developing the software using different testing concepts.
	CO5	Evaluating the ability of students to perform various lifecycle activities like Analysis,Design, Implementation, Testing and Maintenance.

PDC 11

SUB.CODE: 24PDC204

Programme code : 10	POST GRADUATE DIPLOMA IN COMPUTER APPLICATIONS		
Title of the paper :	PYTHON PROGRAMMING		
Batch 2024-2025	Hours / Week 3	Total Hours 30	Credits 4

CourseObjectives

1. To understand the fundamentals of Python Programming.
2. To get knowledge about the Functions in Python.
3. To understand the concepts of List and String methods.

CourseOutcomes(CO)

K1 – K5	CO1	To implement basic concepts of operators and functions.
	CO2	To Review various string, list, tuple and dictionaries.
	CO3	To evaluate the functionality of an exception handling.
	CO4	To analyze the concept of classes and objects.

PDC 13

SUB.CODE: 24PDC2CN

Programme code : 10	POST GRADUATE DIPLOMA IN COMPUTER APPLICATIONS		
Title of the paper :	PYTHON PROGRAMMING LAB		
Batch 2024-2025	Hours / Week 3	Total Hours 30	Credits 4

Course Objectives

1. To gain knowledge about the fundamentals of python programming.
2. To understand the concepts of string, list, tuple.
3. To implement the concept of exception handling, classes and objects.

CourseOutcomes(CO)

K3	CO1	To implement basic operators and function concepts.
K4	CO2	To Review various string and list methods.
K5	CO3	To execute exception handling.

PDC 15

SUB.CODE: 22PDC2CO

Programme Code: 10	POST GRADUATE DIPLOMA IN COMPUTER APPLICATIONS		
Title of the Paper	OFFICE AUTOMATION LAB		
Batch	Hours / Week	Total Hours	Credits
2024-2025	3	30	4

Course Objectives

1. To understand the basic concepts of MS-Word.
2. To develop database using MS-Access.
3. To understand the concepts in MS-Excel.

Course Outcomes (CO)

K1 to K5	CO1	Learning the formatting skills on paragraphs, tables and lists.
	CO2	Generating various visualization representations
	CO3	Understanding and remember various menus in office automation
	CO4	Applying the database components to develop table using MS-Access
	CO5	Implementing the basics of MS -Excel