FATIMA COLLEGE

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Mary Land, Madurai - 625018, Tamil Nadu

PROGRAMME OUTCOMES AND COURSE OUTCOMES

2021 – 2022

NAME OF THE PROGRAMME: BCA   **PROGRAMME CODE: USCA**

Programme Outcomes (POs)

PO 1	Model Tool Usage: Understand, analyze and apply the concepts of latest technologies to bring solutions to the problems in the areas of computer applications.
PO 2	Computer Knowledge: Analyze and synthesize computing systems through quantitative and qualitative techniques along with effective verbal and non-verbal communication.
PO 3	Environment Sustainability: Apply technical and professional skills practically to excel in providing solutions for solving complex real life problems satisfying industrial and societal needs.

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PO 4	Team Work with Professional Skills: To promote leadership skills and also as an individual on working with multi-disciplinary projects using Modern computing tools and Open-Source Technologies.
PO 5	Ethics: Commit to professional ethics and cyber regulations considering the societal and environmental issues within local and global contexts for sustainable development

Course Outcomes (COs)

Course Code	Course Title	Course Outcomes
19J1CC1	Programming In C	CO1: Acquire basic understanding of C programming CO2: Illustrate how arrays and strings are implemented in C

		CO3: Utilize the knowledge of Functions and Pointers
		CO4: Analyze the memory management concept in C using structure and Unions
		CO5: Outline the file operations in C
19J1CC2	Lab In C Programming	CO1: Acquire basic understanding of C programming
		CO2: Illustrate how arrays and strings are implemented in C
		CO3: Utilize the knowledge of Functions and Pointers
		CO4: Analyze the memory management concept in C using structure and Unions
		CO5: Outline the file operations in C
21J1NME	Animation Tools and	CO1: Apply object properties, methods and events

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	Techniques	CO2: Design, create and edit animation scenes and interactive movies CO3: Utilize event handling methods and properties CO4: Demonstrate story boards and animation movies CO5: Utilize and understand different sounds and sound formats in alice
19J2CC3	Object Oriented Programming In C++	CO1: Assess the object – oriented concepts in C++ CO2: Illustrate the usage of Functions in C++ CO3: Analyze advanced features of C++ specifically stream I/O and overloading CO4: Demonstrate on Inheritance and Virtual Classes CO5: Outline the file operations in C++

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19J2CC4	Lab in C++ programming	CO1: Read, understand and trace the execution of programs written in C++ language
		CO2: Demonstrate class and object functions
		CO3: Assess operator overloading and function overloading to specific problem definition
		CO4: Demonstrate file operations in C++.
		CO5: Write C++ code to demonstrate each concept
21J2NME	Animation Tools And Techniques	CO1: Apply object properties, methods and events
		CO2: Design, create and edit animation scenes and interactive movies
		CO3: Utilize event handling methods and properties
		CO4: Demonstrate story boards and animation movies

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		CO5: Utilize and understand different sounds and sound formats in alice
19J3CC5	Operating Systems	CO1: Outline the structure of OS, basic architectural components
		CO2: Analyze on the different scheduling algorithms and critical section problems
		CO3: Critique device and resource management techniques by concentrating on deadlocks
		CO4: Identify and know about memory management techniques
		CO5: Interpret the mechanisms adopted for file sharing in distributed Applications

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19J3CC6	Lab In Relational Database Management Systems	CO1: Critique SQL commands to create tables and indexes
		CO2: Apply DDL and DML commands in real time applications
		CO3: Understand the needs of triggering applications
		CO4: Disseminate knowledge of RDBMS and SQL, both in terms of design and implementation usage
		CO5: Write dynamic queries to demonstrate the concepts of RDBMS
19AC3ACJ3	Principles Of Financial Accounting And Accounting Package	CO 1: Understand the basic concepts of company creation in tally
		CO 2: It tells how to work with Journals, Ledgers and Cash Flow Statements.

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		CO 3: It is the language that managers use to communicate with the terms of accounting. CO 4: The firm's financial and economic information can be shared to external parties such as shareholders and creditors. CO 5: Create and display single and multiple stock groups and stock categories
19J3SB1	Logical Reasoning And Data Interpretation	CO1: Apply quantitative techniques to solve variety of problems CO2: Perform statistical analysis to interpret information CO3: Apply the aptitude tricks, shortcuts and formulas CO4: Acquire clear understanding on easily solving the

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		reasoning
		CO5: Focuses in clearing the competitive, Campus and entrance online tests
19J4CC7	Data Structures And Algorithms	CO1: To understand about writing algorithms and step by step approach in solving problems with the help of fundamental data structures.
		CO2: To disseminate knowledge in Abstract Data Types.
		CO3: To Work with Tree Traversals.
		CO4: To analyze the different searching and sorting techniques.
		CO5: Analyze case studies to implement and comment about performance of algorithms.

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19J4CC8	Lab In Web Programming	CO1: Select and apply mark-up languages for processing and presenting information in web pages.
		CO2: Design and implement dynamic websites with good aesthetic sense of designing.
		CO3: Use fundamental skills to maintain web server services required to host a website.
		CO4: Prepare the students to write a well formed DB connection
		CO5: Create Webpages for any application using database connectivity
19P4ACJ4	Digital Principles And Computer Organization	CO1: Identify the anatomy of computers
		CO2: Compare the various memory units along with the

		storage devices CO3: Demonstrate and perform computer arithmetic operations on integer and real numbers CO4: Analyze the performance of Gates CO5: Conceptualize the basics of organizational and architectural issues of a digital computer with logics
19J4SB2	Skill Based – II Data Analysis Using Spreadsheets	CO1: Customize the Ribbons of Spreadsheets CO2: Perform statistical analysis using charts CO3: Apply the aptitude tricks, shortcuts and formulas CO4 Compare all the functions available CO5: Focuses on the protection of data in spreadsheets

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19J5CC9	Software Engineering	CO1: Compare the various software models	
		CO2: Use knowledge, techniques, skills and modern tools necessary for software engineering practice	
		CO3: Analyze on the design factors and guidelines	
		CO4: Understand the different types of testing used in software's	
		CO5: Compare the various types of Testing styles	
19J5CC10	JAVA PROGRAMMING	CO1: Acquire in depth knowledge in Java programming concepts	
		CO2: Identify and analyze platform independent environment and byte code generation	
		CO3: Build, Execute and Debug java programs along with	

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		Exceptions
		CO4: Design and Implement packages
		CO5: Write, Compile and Execute applet programs which includes GUI
19J5CC11	LAB V – JAVA PROGRAMMING	CO1: Acquire in depth knowledge in Java programming concepts
		CO2: Identify and analyze platform independent environment and byte code generation
		CO3: Build, Execute and Debug java programs along with Exceptions
		CO4: Design and Implement packages
		CO5: Write, Compile and Execute applet programs which

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		includes GUI

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19J5CC12	LAB IN DOT NET PROGRAMMING	CO1: Use Dot Net Framework along with the features of C#
		CO2: Create websites to explore database connectivity
		CO3: Analyze debugging webpages through case studies
		CO4: Use the different types of master page creation
		CO5: Create different dynamic websites for applications
19J5ME1	CLOUD COMPUTING	CO1: Outline problems and evaluate various cloud computing solutions
		CO2: Outline Cloud service and deployment models
		CO3: Identify the architecture and infrastructure of cloud computing including SaaS, PaaS, IaaS, public cloud, private cloud, hybrid cloud and community cloud
		CO4: Predict security issues and formulate recovery mechanisms

		CO5: Understand the concept of virtualization
19J5ME2	MOBILE COMPUTING	CO1: Create the infrastructure to develop mobile communication systems
		CO2: Assess the characteristics of emerging technologies in mobile communication
		CO3: Critique new knowledge in the field of computer science by using appropriate search methodologies
		CO4: Analyze on the various software kits available
		CO5: Assess the characteristics of Mobile Components and Applications
19J5SB3	SKILL BASED – III LAB IN ANIMATION	CO1: Analyze on the various tools of Photoshop
		CO2: Compare different types of filters used in Photoshop

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	TECHNIQUES	CO3: Apply the techniques available in CorelDraw
		CO4: Understand the Open Source techniques in editing
		CO5: Create animated banners and various simple animations
19J5SB4	SKILL BASED – IV LAB IN E–CONTENT DEVELOPMENT	CO1: Understand E-Learning with respect to its needs, challenges and benefits
		CO2: Explain the components of Authoring tools and E-learning standards
		CO3: Apply Audio editing techniques for creating podcasts
		CO4: Understand the techniques of creating customized lessons
		CO5: Create videos using online tools
19J6CC13	PYTHON	CO1: Identify different Python object types
		CO2: Discuss how to use indexing and slicing to access data in

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		Python programs
		CO3: Assess structure and components of a Python program
		CO4: Write programs to demonstrate loops and decision statements in Python
		CO5: Build and package in Python modules for reusability
19J6CC14	COMPUTER NETWORKS	CO 1: Outline the functionalities of OSI reference model
		CO 2: Discuss guided and unguided media and its real time usage and applications implementations.
		CO 3: Analyze on the design issues of DLL
		CO 4: Demonstrate various routing algorithms through case studies network design and implementation
		CO 5: Assess real time web and network security mechanisms

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19J6CC15	LAB IN PYTHON	CO1: Identify different Python object types CO2: Discuss how to use indexing and slicing to access data in Python programs CO3: Assess structure and components of a Python program CO4: Write programs to demonstrate loops and decision statements in Python CO5: Build and package in Python modules for reusability
19J6ME3	SECURITY PRACTICES	CO1: Understand the concept of cryptography CO2: Compare on the encryption techniques available CO3: Evaluate the Various tools and tactics followed in military CO4: Predict the forensics fundamentals and the various technologies used to avoid computer crimes.

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		CO5: Illustrate different methods to collect and preserve digital evidence and Digital Crime Scene
19J6ME4	DATA MINING	CO1: Analyze data mining algorithms, methods, and tools CO2: Identify business applications of data mining CO3: Predict quantitative analysis report to make decisions CO4: Outline the developing areas web mining, text mining, and ethical aspects of data mining CO5: Compare the various applications of Data Mining
19J6ME5	INTERNET OF THINGS (IoT)	CO1: Design IOT based Prototypes CO2: Explain how sensors and embedded systems work CO3: Analyze and visualize sensor data CO4: Formulate real World IoT design Constraints and Industrial

		Automation in IoT
		CO5: Work with IoT
19J6ME6	HUMAN COMPUTER INTERACTION	CO1: Identify problems that are amenable to solution by AI methods
		CO2: Formulate search problems and implement search algorithms using admissible heuristics
		CO3: Analyze on the basics and architecture of VR systems
		CO4: Identify the human factors, effects and impact of VR
		CO5: Apply the VR technology in different applications
19J6SB5	SKILL BASED - V LAB IN PHP	CO1: Demonstrate how server – side programming works on the web
		CO2: Use PHP built – in functions and creating custom functions
		CO3: Create a database in phpMyAdmin

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| | | CO4: Create dynamic web pages |
| | | CO5: Design websites for various applications |

NAME OF THE PROGRAMME: PGDCA PG Diploma in Computer Applications

Programme Outcomes (POs)

PO 1	To learn the latest trends in various subjects of computers applications.
PO 2	To learn computer applications in different fields like banking, insurance, software industry, govt & Corporate sectors.
PO 3	To provides specialisation in computer science with technical, professional and communications skills. It also trains students to become future IT professionals.
PO 4	To design, implement and evaluate a computer-based system, process, component, or

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	programme.
PO 5	To Design and develop applications to analyze and solve all computer related problems.

Course Outcomes (COs)

Course Code	Course Title	Course Outcomes
19PDB101	COMPUTER FUNDAMENTALS	CO1: Outline the structure of OS, basic architectural components CO2: Analyze on the different scheduling algorithms and critical section problems CO3: Critique device and resource management techniques by concentrating on deadlocks

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		CO4: Identify and know about memory management techniques CO5: Interpret the mechanisms adopted for file sharing in distributed Applications
19PDB102	PROBLEM SOLVING USING C	CO1: Acquire basic understanding of C Programming CO2: Illustrate how arrays and strings are implemented in C CO3: Utilize the knowledge of Functions and Pointers CO4: Analyze the memory management concept in C using structure and Unions CO5: Outline the file operations in C
19PDB103	WEB DESIGNING	CO1: Acquire basic understanding of Web designing CO2: Writing valid and concise code for web pages

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		CO3: Utilize the knowledge of web creation CO4: Analyze the validations for website CO5: Outline the file operations
19PDB104	LAB –I PROGRAMMING IN C	CO1: Acquire basic understanding of C Programming CO2: Illustrate how arrays and strings are implemented in C CO3: Utilize the knowledge of Functions and Pointers CO4: Analyze the memory management concept in C using structure and Unions CO5: Outline the file operations in C
19PDB105	LAB –II WEB PROGRAMMING	CO1: Acquire basic understanding of Web designing CO2: Writing valid and concise code for web pages

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		CO3: Utilize the knowledge of web creation CO4: Analyze the validations for website CO5: Outline the file operations
21PDB106	LAB – III DESIGN TECHNIQUES	CO1: Analyze on the various tools of Photoshop CO2: Compare different types of filters used in Photoshop CO3: Apply the techniques available in CorelDraw CO4: Create animated banners and various simple animations CO5: How to prepare and process photos for the Web?
19PDB201	DATABASE MANAGEMENT SYSTEM	CO1: Critique SQL commands to create tables and indexes CO2: Apply DDL and DML commands in real time applications CO3: Understand the needs of triggering applications

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		CO4: Disseminate knowledge of RDBMS and SQL, both in terms of design and implementation usage CO5: Write dynamic queries to demonstrate the concepts of RDBMS
21PDB202	PYTHON PROGRAMMING	CO1: Assess why Python is a useful scripting language for developers. CO2: Identify Python object types. CO3: Illustrate the usage of Lists, tuples, and Dictionaries in Python Programs. CO4: Acquire how to design and program Python applications. CO5: Outline the file operations in Python.
19PDB203	LAB –IV RDBMS	CO1: Critique SQL commands to create tables and indexes

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		CO2: Apply DDL and DML commands in real time applications
		CO3: Understand the needs of triggering applications
		CO4: Disseminate knowledge of RDBMS and SQL, both in terms of design and implementation usage
		CO5: Write dynamic queries to demonstrate the concepts of RDBMS
19PDB204	LAB –V PYTHON PROGRAMMING	CO1: Assess why Python is a useful scripting language for developers.
		CO2: Identify Python object types.
		CO3: Illustrate the usage of Lists, tuples, and Dictionaries in Python Programs.
		CO4: Acquire how to design and program Python applications.

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		CO5: Outline the file operations in Python