A.D.M. COLLEGE FOR WOMEN

(Autonomous)

Affiliated to Bharathidasan University

(Nationally Accredited with "A" Grade by NAAC – 4th Cycle)

NAGAPATTINAM 611 001.

LOCAL/NATIONAL/REGIONAL/GLOBAL RELEVANCE

DEPARTMENT OF BCA

Programme: BCA **Year: 2022-2023**

Course Code	Title of the Course	Local/Regional/ National /Global	Rationale	Course Outcomes	PSOs Addressed	Cognitive Level
KUA	C Programming	National & Regional	C is highly portable language i.e. code written in one machine can be moved to other which is very important and powerful feature.	• CO1: Understand the basic terminology of algorithm, flowchart and gain awareness used in computer programming.	PSO 1	U,R
				• Co2: Design programs involving the various concepts like decision structures, loops, functions of C language.	PSO 4	Ap
				• Co3: Demonstrate the single, multi-dimensional arrays, String functions and user defined	PSO 2	U, An

				functions.		
				• CO4: Compare the structure and union of C and apply it to construct array of structures and structure function.	PSO 3	An
				• CO5: Understand the dynamics of memory by the use of pointers and pointers with functions.	PSO 4	U, An
KUD	Object Oriented Programming Using C++ with Data Structures	Global	Provides rich set of problems covering the basic algorithms as well as numerous computing problems demonstrating the applicability and importance of various data structures and related algorithms.	• CO 1: Learn the basic concepts in Object-Oriented programming	PSO 1	R
				• CO 2: Develop programming skills by applying Object-Oriented programming	PSO 2	Ap
				• CO3:Discuss the functio overloading and Member Functions	PSO 2	Ap
				• CO 4: Understand the concepts of Constructors and Inheritance	PSO 3	An
				• CO 5: An Ability to incorporate Exception Handling in Object-Oriented programs. Analyze File	PSO 4	U

				Input/ Output Streams		
KUA2	Elements of Accounting	National	To ensure that common practices and conventions are followed, and that the common rules and procedures are complied with.	• CO1:Preparing financial statements in accordance with appropriate standards.	PSO 3	R, U
				• CO2:Prepare ledger accounts using double entry bookkeeping and record journal entries accordingly.	PSO 1	R
				• CO3: Interpreting the business implications of financial statement information	PSO 5	Ap
				• CO4:Communicating complex ideas in writing and through oral presentations	PSO 2	Ap
				• CO5: Working effectively in diverse team settings. Effectively coordinating and motivating a group to achieve its best output	PSO 1	Ap
KUGY	Java Programming	Global	To develop for embedded applications	• CO1: Read and understand Java-based software code of medium-	PSO 2	R,U

	Lab		Running On multiple platforms.	to-high complexity. Use standard and third party Java's API's when writing applications.		
				• CO2: Understand the basic principles of creating Java applications with graphical user interface (GUI).	PSO 2,6	R,U
				• CO3: Create rich user-interface applications using modern API.	PSO 2	U
				• CO 4: Understand the structure of the computational process, algorithms and complexity of computation.	PSO 3	Ap
				• CO 5: Understand the basic approaches to the design of software applications. Apply the above to design, implement, appropriately document and test a Java application of medium	PSO 4	U

				complexity, consisting of multiple classes		
KUE1Y	Multimedia Lab	National	To develop an animation in Adobe Flash capable of viewing multimedia contents, executing rich Internet applications, and streaming audio and video	• CO1: Communicate ideas, believable action and emotion effectively by employing principles	PSO 1	R
				• CO2: Animation and performance in all aspects of drawing.	PSO 5	Ap
				• CO3: Integrate the concepts, principles and theories involved in the physics of animation in all	PSO 2	Ap
				• CO 4: Aspects of drawing.	PSO 1	R
				• CO5:Design layouts and backgrounds that incorporate principles of composition, perspective and	PSO 5	Ap

KUH	Database Systems	National	To create general purpose software system that facilitates the process of defining databases for various applications globally	• CO 1: Emphasize the need, role, importance and uses of databases in application development	PSO 1	R, U
				• CO 2: Design E-R modeling for a given situation and provide the foundation for development of relational database structure.	PSO 2	U
				• CO 3: Identify the advantages of the database approach over the file based data storage system.	PSO 2	U
				• CO 4: Distinguish between different models of file organizing, storing and using of data.	PSO 3	U
				• CO 5: Understand the relational model and relational algebra operations.	PSO 4	An

KUIY	Database Systems Lab	Global	To create general purpose software system that facilitates the process of defining databases for various applications globally	• CO1: Work with internet concepts	PSO 5	E, U
				• CO 2: Be familiar with the functionality of each layer of OSI and TCP/IP reference model.	PSO 2	U
				• CO 3: Build up a clear concern on the networking technologies	PSO 2	U
				• CO 4: Understand the data communication system, components and the purpose of layered architecture.	PSO 1	An
				• CO 5: Understand the services of data link layer and protocols	PSO 5	An
KUA5	Financial Management	National	To reduce the cost of finance. Ensuring sufficient availability of funds.	• CO1: Preparing accounting information for planning and control and for the evaluation of finance.	PSO 1	R

				• CO 2: Prepare Bank reconciliation statement from incomplete statement	PSO 2	Ap
				• CO 3: Explain the purpose of double entry system	PSO 2	Ap
				• CO 4: To understanding the accounting system properly.	PSO 3	An
				• CO 5: Preparation of ratification errors.	PSO 4	U
KUA6Y	Tally Lab	Regional	To reduces th redundancy of entering Records in Various Accounting Books using this applicatio globally.	• CO 1: At the end of the course student should be able to use accounting and business terminology.	PSO 5	E, U
				• CO 2: The objective of financial reporting and related key accounting assumptions and principles.	PSO 2	U

				• CO 3: Student will do by their own create company, enter accounting voucher entries including advance voucher entries, do reconcile bank statement, do accrual adjustments, and also print financial statements, etc. in Tally ERP.9 software	PSO 2	U
				• CO 4: Students do possess required skill and can also be employed as Tally data entry operator.	PSO 1	An
				• CO 5: At the end of the course student should be able to use accounting and business terminology.	PSO 5	An

KUS1Y	HTML Lab	Regional	To build our own website with HTML and CSS which gives the chance to stand out from the crowd with an authentic, hand-crafted representation of our business	• CO1:Develop skills in analysing the usability of a web site.	PSO 5	E, U
				• CO 2: Understand how to plan and conduct user research related to web usability.	PSO 2	U
				• CO 3: Understand basic concepts in HTML.	PSO 2	U
				• CO 4: Insert and format text.	PSO 1	An
				• CO 5: Implement a variety of hyperlinks to connect pages and communicate with users via email link.	PSO 5	An
KUE2Y	R Programming Lab	Regional	R is a scripting language for statistical data manipulation, statistical analysis, graphics representation and	• CO1: Understand the fundamental syntax of R through demonstrations and writing R code	PSO 1	R, U
				• CO2: Apply concepts such as data types, iteration, control structures, functions, and	PSO 1 & PSO 2	R

			reporting	boolean operators using R		
				• CO3: Able to import a variety of data formats into R using R Studio	PSO 1	R, U
				• CO4: Explore data-sets to perform appropriate statistical tests using R	PSO 2	U
				• CO5: Acquire skills to generate charts and graphs visualization using R	PSO 1 & PSO 2	An
KUE2Y	Web Application Development Lab	National, Regional	Web Application Development is in high demand for companies to become substantially growing. A well-built web app is capable of: Reach and serve millions of	• CO1: The learning outcome of this course is for students to understand the most relevant technologies for development of web applications.	PSO 4	R, U
				• CO2: Students implement simple web applications that use technologies applicable	PSO 2	R

			consumers and businesses.	to industry.		
				• CO3: They select the best technological option for solving problems that require interaction with a web server.	PSO 3	R
				• CO4: Upon completion of this course, students will be able to evaluate, design and develop web applications using the industry's current protocols, models and architectures.	PSO 3	R
				• CO5: Get introduced in the area of Online Game programming	PSO 1	R
KUK	Python Programming	Regional	To build dat visualization and dat analysis using pytho	• CO1: Describe the basic built-in functions and syntax of Python programming.	PSO 1	R, U

			language.	• CO2: Explain the mapping and file concept.	PSO 5	R, A
				• CO3: Explain the object oriented programming concept.	PSO 1	U
				• CO4: Illustrate the concepts of decision making and construct statements.	PSO 1	R, A
				• CO5: Illustrate the usage of database and regular expression	PSO 3	A
KUL	Software Engineering	Local, National. Regional	An engineering branch associated with development of software product using well-defined scientific principles, methods and procedures. The outcome of software engineering is an	• CO1: An ability to design and conduct experiments, as well as to analyze and interpret data.	PSO 2	R, U
				• CO2: An ability to function on multi-disciplinary teams.	PSO 2,6	R,An
				• CO3: An ability to identify, formulate, and solve engineering problems.	PSO 2	U, A

			efficient and reliable software product.	• CO4: An understanding of professional and ethical responsibility.	PSO 3	R
				• CO5: Students can apply the knowledge, techniques, and skills in the development of a software product.	PSO 4	R, An
KUE3	Mobile Computing	Regional	To act as an electronic organizer or day planner that is portable, easy to use and capable of sharing information with our computer and mobile systems.	• CO1: To explore Mobile security issues.	PSO 4	U
				• CO 2: To integrate multimedia, camera and Location based services in Android Application	PSO 2	A
				• CO 3: To be familiarized with Intent, Broadcast receivers and Internet services.	PSO 5	U
				• CO 4: To learn activity creation and Android UI designing.	PSO 2	A
				• CO 5: To understand IP and	PSO 3	R, U

				TCP layers of Mobile Communication.		
KUE3	Big Data and Analytics	Regional	Big data analytics is the often complex process of examining big data to uncover information -- such as hidden patterns correlations, market trends and customer preferences -- that can help organizations make informed business decisions.	• CO1:Demonstrate the working of row and column oriented data stores	PSO 4	U
				• CO2:Describe the Hado architecture and File system	PSO 2	A
				• CO3: Apply the Map Reduce Programming model for real-worldproblems	PSO 5	U
				• CO4:Distinguish NoSQL databases from RDBMS	PSO 2	A
				• CO5: Define the big data, types of data and understand the need of bigdata analytics	PSO 3	R, U
KUE3	Artificial Intelligence	Global	Artificial intelligence (AI) is the basis fo mimicking huma intelligence processe through the creation	• CO1:To understand the basics of Artificial Intelligence, Intelligent Agents and its structure	PSO 4	U
				• CO 2: To understand the	PSO 2	A

			and application c algorithms built into dynamic computin environment. State simply, AI is trying t make computers thin and act like humans.	problem solving by various searching techniques		
				• CO3: To understand the concept of informed search and Exploration, constraint satisfaction	PSO 5	U
				• CO4:Problems and Adversarial Search	PSO 2	A
				• CO 5: To Understand what is Reasoning and Knowledge Representation	PSO 3	R, U
KUS2Y	Python and Bioinformatics Lab	National, Regional. Global	Python is a widely used general-purpose, high-level programming language in bioinformatics field. Its design philosophy emphasizes code	• CO 1: On completion of the Course, the learner will be able	PSO 4	U
				• CO2: Practice the Python programming language from its scratch: its syntax, idioms, patterns and styles.	PSO 2	A
				• CO3: Illustrate the essentials of the Python library, and learn how to learn about other parts	PSO 5	U

			readability, and its syntax allows programmers to express concepts in fewer lines of code than would be possible in languages such as C++ or Java	of the library when you need them.		
				• CO4:Interpret the mathematical results in physical and other forms.	PSO 2	A
				• CO 5: Identify, formulate and solve the Linear Differential Equations.	PSO 3	R, U
KUS3Y	Android Lab	National, Global	To encounter the development of Mobile Apps globally by all the Computer Professionals	• CO 1: Use Intent , Broadcast receivers and Internet services in Android App.	PSO 4	U
				• CO 2: Design and implement Database Application and Content providers.	PSO 2	A
				• CO3:Use multimedia, camera and Location based services in Android App.	PSO 5	U
				• CO4:Discuss various security issues in Android platform.	PSO 2	A

				• CO5:Demonstrate their understanding of the fundamentals of Android operating system	PSO 3	R, U
KUN	Web Technology	National, Regional	Web Technology refers to the various tools and techniques that are utilized in the process of communication between different types of devices over the internet.	• CO 1: Illustrate the web technology concept to create schemas and dynamic web pages.	PSO 4	U
				• CO 2: Understand the concept of CSS for dynamic presentation effect in HTML and XML documents.	PSO 2	A
				• CO 3: Describe the mark-up languages for processing, identifying and presenting information in web pages.	PSO 5	U
				• CO 4: Apply scripting languages in HTML document to add interactive components to web pages	PSO 2	A

				• CO 5: Define the knowledge about HTML document with element types, hyperlinks, images, list, tables and forms	PSO 3	R, U
KUE4	Computer Graphics	Local, National,	To create the illusion of movement, by computer professionals.	• CO 1: Understand the basics of computer graphics, different graphics systems and applications of computer graphics.	PSO 4	U
				• CO 2:Discuss various algorithms for scan conversion and filling of basic objects and their comparative analysis.	PSO 2	A
				• CO 3:Use of geometric transformations on graphics objects and their application in composite form.	PSO 5	U
				• CO 4: Extract scene with different clipping methods and its transformation to	PSO 2	A

				graphics display device.		
				• CO 5: Understands light interaction with 3D scenes	PSO 3	R, U
KUE4	Cyber Security	Global	Cyber security refers to protecting systems connected to the internet from threats in cyberspace. It involves protecting software, data, and hardware and helps prevent cybercriminals from gaining access to devices or the networks.	• CO 1: Analyze and resolve security issues in networks and computer systems to secure an IT infrastructure.	PSO 4	U
				• CO 2: Design, develop, test and evaluate secure software.	PSO 2	A
				• CO 3: Develop policies and procedures to manage enterprise security risks.	PSO 5	U
				• CO 4: Analyze the techniques of Symmetric Key.	PSO 2	A
				• CO 5: Algorithms and Public Key Algorithms.	PSO 3	R, U
KUE4	E Commerce	Regional, Global	E Commerce is playing an increasingly important role in the	• CO 1: The students can learn why information systems are so important today for business and management.	PSO 4	U

			way that people are purchasing products. It isn't limited only to retail; more and more B2B buyers are also turning to online sources. With an online store, customers can do everything on their own, at a time and place that is convenient for them	• CO 2: Evaluate the role of the major types of information systems in a business environment and their relationship to each other.	PSO 2	A
				• CO 3: Assess the impact of the Internet and Internet technology on business-electronic commerce and electronic business.	PSO 5	U
				• CO 4: Identify the major management challenges to building and using information systems and learn how to find appropriate solutions to those challenges	PSO 2	A
				• CO 5: Learn the core activities in the systems development process	PSO 3	R, U

KE5Y	Web Technology and Bioinformatic Lab	Regional, Global	Bioinformatics combines computer programming, big data, and biology to help scientists understand and identify patterns in biological data. It is particularly useful in studying genomes and DNA sequencing, as it allows scientists to organize large amounts of data.	• CO1: Identify the operators to learn the basic HTML commands	PSO 4	U
				• CO 2: Understand the concept of Hyperlinks, Use of Cascading Style sheets.	PSO 2	A
				• CO 3: Implement HTML concept in developing simple applications	PSO 5	U
				• CO 4: Implementing the techniques for DNA Transcription and Mutation.	PSO 2	A
				• CO 5: Analyze a web page and identify its elements and attributes	PSO 3	R, U

KUE5Y	UI/UX Design and Animation Lab using Open Source Tools	National	A good UI/UX design means more user engagement, more user engagement turns into potential leads, ultimately increasing the revenue, as well as the brand awareness of your business.	• CO 1: Understand the Usability of Interactive systems.	PSO 4	U
				• CO 2: Understand Guidelines and Principles	PSO 2	A
				• CO 3: Be able to manage the development process and interaction styles.	PSO 5	U
KUE5Y	Software Testing Tools Lab	Regional	Software testing tools are applications that can be used to assist developers and testers in performing manual or automated tests. Various tools perform specific functions such as unit testing, integration testing,	• CO 1: Apply modern software testing processes in relation to software development and Project management.	PSO 5	U
				• CO 2: To create test strategies and plans, design test cases	PSO 2	A
				• CO 3: Prioritize and Execute	PSO 3	R, U

			regression testing, end-to-end testing, performance testing, compliance testing, and security testing	• CO 4: Manage incidents and risks within a project	PSO 4	U