

CAUSSANEL COLLEGE OF ARTS AND SCIENCE

(Affiliated to Alagappa University, Karaikudi)

Accredited with 'A' Grade by NAAC

Recognized by UGC under 2(f) & 12(B)

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Type of Graduation	Under Graduation
Programme Name	B C A (Bachelor of Computer Applications)
Regulation (CBCS)	2017

Outcome of the Programme

Have fundamental and advanced programming skills, as well as inter-disciplinary knowledge, in order to comprehend, analyse, design, and create new solutions for real-world challenges.

Achieve success in professional career and in higher education.

Engage in lifelong learning to demonstrate professionalism, entrepreneurship, ethical behaviour, communication skills, and collaborative teamwork in order to adapt to evolving trends.

Specific Outcome of the Programme

To formulate real-world problems in software by using the concepts of basic data structures, algorithms, architectures, database management systems, computing, and technology.

To achieve entrepreneurship and employability in industries by designing and developing innovative software with varying computing complexity using modern computer languages, environments, and platforms.

Semester	Subject Code	Subject Title	Outcome	Specific Outcome
I	7BCA1C1	C AND DATASTRUCTURE	<ul style="list-style-type: none"> Understanding the Basic concepts of programming Learning the key concepts of C Demonstrating the purpose and work of Array, Files, Pointers, Structures and Unions Learning the basic Data Structure Concepts 	<p>Design and Develop C programs to solve the real world problems</p> <p>To know how the data can be stored in computers</p>
I	7BCA1P1	C AND DATASTRUCTURE LAB	<ul style="list-style-type: none"> Write programs on simple logics Designing the solutions with the help of Array, Files, Pointers, Structures and Unions Implementing basic Data Structures like Stack, Queue and Linked Lists 	<p>Design and Develop C programs to solve the real world problems in a Efficient manner</p>
I	7BSOA1	FUNDAMENTALS OF COMPUTERS	<ul style="list-style-type: none"> Understand basic terms and definitions of Computer Learn data processing methods and representation of data 	<p>Expertise windows operating system and Office tools</p>

			<ul style="list-style-type: none"> • Learn Office tools to make daily life simple • Understand basic operations in windows environment 	
II	7BCA2C1	PROGRAMMING IN C++	<ul style="list-style-type: none"> • Understand the Basic Concepts of Object Oriented Programming • Applying the OOPs concepts like Class, Object, Inheritance, Constructors and Destructors, Polymorphism in C++ • Learn Exception Handling, Templates and file concepts 	<p>Solving the real world problems by applying OOPs Concepts</p> <p>Designing the Solutions in a reusable and efficient manner</p>
II	7BCA2P1	PROGRAMMING IN C++ LAB	<ul style="list-style-type: none"> • Write programs on simple logics • Use of Storage Keyword, inline functions, friend functions to solve the problems • Demonstrating the OOPs concepts like Class, Object, Inheritance, Constructors and Destructors, Polymorphism in C++ • Demonstrate Exception 	<p>Solving the real world problems by applying OOPs Concepts</p> <p>Designing the Solutions in a reusable and efficient manner</p>

			Handling, Command Line Argument, Template, files to solve advanced problems.	
II	7BSOA2	DESKTOP PUBLISHING	<ul style="list-style-type: none"> • Understand the basic features and operations of Corel Draw and Photoshop • Learn advanced tools in Corel Draw and Photoshop 	Design Advertisements, Books, Business cards and other graphical oriented works using Corel Draw and Photoshop
III	7BCA3C1	DATABASE MANAGEMENT SYSTEMS	<ul style="list-style-type: none"> • Understand the Basic concepts and terminologies of Database Management System • Demonstrate the ER Model with relationships and Dependencies • Using advanced DBMS concepts like Normalization, Schemas, Procedures and Parallelisms • Learning the Database System Architectures and its Network types 	Apply the Skill to store and retrieve the real world data effectively Solving the Problems given in the data by effectively manipulating the Database
III	7BCA3P1	ORACLE LAB	<ul style="list-style-type: none"> • Create Database, Tables and also Altering them for Customise Purposes 	Apply the Skill to store and retrieve the real world data effectively

			<ul style="list-style-type: none"> • Use the database tables by inserting, deleting and modifying the data • Applying advanced concepts like joins, triggers, procedures and functions. 	Solving the Problems given in the data by effectively manipulating the Database
IV	7BCA4C1	JAVA PROGRAMMING	<ul style="list-style-type: none"> • Understanding the fundamentals of OOPs and Java • Remembering Expressions, Datatypes, Decision making and Branching • Demonstrating Class, Object, Inheritance, Interface, Vectors and Arrays • Learning advanced concepts like packages, threads and applets 	<p>Solving the real world problems by applying OOPs Concepts</p> <p>Designing the Solutions in a reusable and efficient manner.</p>
IV	7BCA4P1	JAVA PROGRAMMING LAB	<ul style="list-style-type: none"> • Solve simple logics using Java's built-in functions and keywords • Create simple data structures like stack and queue • Demonstrate interface, thread, applets 	<p>Solving the real world problems by applying OOPs Concepts</p> <p>Designing the Solutions in a reusable and efficient manner</p>

			<ul style="list-style-type: none"> • Apply the concept of Exception Handling to avoid errors • Using Applets draw simple drawings. 	
V	7BCA5C1	.NET PROGRAMMING	<ul style="list-style-type: none"> • Understanding the .Net framework and CLR environment • Remembering Expressions, Datatypes, Decision making and Branching • Learning windows common controls, additional controls, windows menus, inbuilt functions and dialog boxes • Demonstrating database in .Net environment with ADO.NET 	<p>Solving the real world problems and developing it as a real-time application</p> <p>Create user friendly fast and secure application connected with Databases</p>
V	7BCA5P1	.NET PROGRAMMING LAB	<ul style="list-style-type: none"> • Understanding the IDE layouts, simple input menus, label, button and dialog box functionalities • Demonstrate application debugging with sub procedures, functions, MDI, math and string 	<p>Solving the real world problems and developing it as a real-time application</p> <p>Create user friendly fast and secure application connected with Databases</p>

			<p>manipulation functions</p> <ul style="list-style-type: none"> • Create applications with database to store, retrieve, display and manipulate user data 	
V	7BCA5C2	COMPUTER SYSTEM ARCHITECTURE	<ul style="list-style-type: none"> • Demonstrate the basic computer organization and the Data Representation. • Analyse the machine language and Assembly languages • Understand the basic operations and memory hierarchy of the computers with it types. • Use the different types of instructions for read, write and manipulation. 	<p>Expertise in the hardware level operations and different instructions</p> <p>Create competent architectures that meet out the today's needs</p>
V	7BCAE1A	WEB DESIGN TECHNOLOGY	<ul style="list-style-type: none"> • Create webpages using HTML with basic and advanced elements. • Create interactive webpages with the help of Java Script • Learn basic concepts of VB Script along OOPs concepts 	<p>Create interactive websites and portfolios to satisfy the customer needs</p>

V	7BCAE2A	COMPUTER GRAPHICS	<ul style="list-style-type: none"> • Demonstrate the line drawing algorithms, circle drawing and Ellipse drawing too • Learn 2D & 3D Transformations, Viewing and Clipping • Able to design the interactive user interfaces by analysing the IO devices 	<p>Create attractive User interfaces for the developed applications</p> <p>Design good and fast multimedia applications which are need of the hour</p>
VI	7BCA6C1	DATA MINING AND WAREHOUSING	<ul style="list-style-type: none"> • Understand data mining concepts with reputed algorithms • Analysing huge amount of data using classification and cluster analysis techniques • Demonstrate the mining concepts in webdata and in search engines • Using design techniques to design data warehouses 	<p>Analyse the past data and give recommendations to the users based on their needs</p> <p>Design applications and apply the mining concepts to make user friendly applications, websites and search engines</p>
VI	7BCA6C2	COMPUTER NETWORKS	<ul style="list-style-type: none"> • Understand the protocol layering and physical level communication 	<p>Solve the network oriented problems by analysing the performance and creating an optimal solution</p>

			<ul style="list-style-type: none"> • Understand the various components required to build different networks • Learn the functions of network layer, transport layer and the various routing protocols. • Analyse the performance of the network with various metrics 	
VI	7BCA6C3	SOFTWARE ENGINEERING	<ul style="list-style-type: none"> • Demonstrate fundamental concepts of requirements engineering and Analysis modelling • Understand the phases in a software project as well as the cost estimation • Analyse the various software design methodologies • Learn various testing and maintenance measures in means of quality 	<p>Construct optimal strategy to execute the project phases and for cost estimation</p> <p>Evaluate the software using various metrics to maintain the quality</p>
VI	7BCA6PR	PROJECT	<ul style="list-style-type: none"> • To solve a specific problem right from its identification and till the 	To solve a specific problem right from its identification and till the successful

			<p>successful solution of the same.</p> <ul style="list-style-type: none"> • Prepare project reports and to face reviews and viva voce examination 	<p>solution of the same.</p> <p>Prepare project reports and to face reviews and viva voce examination</p>
VI	7BCAE3A	OPEN SOURCE LAB	<ul style="list-style-type: none"> • Configure various software and kernel in linux distros • Use MySQL database for creating, storing, retrieving and manipulating the Data • Learn various open source programming languages like Perl, PHP and Python • Demonstrate the MySQL connectivity with Perl, PHP and Python 	<p>Expertise in linux environment</p> <p>Solving the real world problems and developing it as a real-time application using open source tools</p>