

Mahatma Phule Mahavidyalaya, Pimpri Pune 17**Academic Year 2021-22****Department of BBA(CA)****Course outcomes (Semester-wise)**

Name of the Department	Class	Course code	Course Name	Course Outcome
BBA(CA)	FYBB A (CA) Sem-I	CA-101	Business Communication	<ul style="list-style-type: none"> • To adept to communicate and writing skills effectively. • Developing and delivering effective presentations. • To enhance brief about organizational method of so they work smoothly with communication skills. • Create awareness among students about Methods and Media of communication. • Make students familiar with information technology and improve job seeking skills. • To deliver best knowledge about various types and levels of communication
		CA-102	Principles of Management	<ul style="list-style-type: none"> • Practice the process of management's four functions: planning, organizing, leading, and controlling • To enhance knowledge of management and level of management • Evaluate leadership styles to anticipate the consequences of each leadership style. • Understand the working of business organization • Inculcate Entrepreneurial skills • To develop managerial skills in students with good managerial skills.
		CA-103	C Language	<ul style="list-style-type: none"> • To Understand how to use programming in day-to-day Applications • Improve the problem-solving ability using programming skills • Understand and develop well-structured programs using C language • To understand to basics of Procedure Oriented Programming

				<ul style="list-style-type: none"> • To acquire knowledge of file handling with c Programming • To gain the Particulars of Programming to achieve job-oriented skills.
		CA-104	Database Management System	<ul style="list-style-type: none"> • To understand the file structure and its organization. • An introduction about Database management system • Helps student to learn different types of data models • Student gets knowledge about designing relational database • To enhance knowledge of SQL database • To develop the practical skills using database through PL/SQL
		CA-105	Statistics	<ul style="list-style-type: none"> • To understand the power of excel spreadsheet in computing summary statistics. • To develop the statistical skills • To enhance the skills regarding analytical skills using different statistical methods • To understand the concept of various measures of central tendency and variation and their importance in business. • To understand the concept and applications of probability, probability distributions in real life situations. • To understand simulations in business world and decision making.
		CA-106	Practical Based on 103 - 104	<ul style="list-style-type: none"> • To develop the skills to implement Programming through C and DBMS • To develop ability to use data and manage it through skills enhanced • To develop logical ability for programming outcomes • To develop the problem-solving ability • To enhance real world problems and solve them through acquired skills • To develop view to sort out logical problems through

				programming and store them using database knowledge.
		CA-107	\ Principles of Programming Algorithms	<ul style="list-style-type: none"> • Ability to analyze the performance of algorithms. • Ability to choose appropriate algorithm design techniques for solving problems. • Ability to choose appropriate algorithm design techniques for solving problems. • Ability to Create a program-based flowchart • Ability to Understand flowcharts symbols • Ability to Complete and correct flowchart algorithms
		CA- 201	Organizat ion Behavior & Human Resource Management	<ul style="list-style-type: none"> • Helps the students to understand the impact that individual, group & structures have on their behavior within the organizations. • Enhance and apply the knowledge they have received for the betterment of the organization. • Helps in understanding the basics related to individual behavior and its impact on their performance <ul style="list-style-type: none"> • To develop knowledge of organizational structures and theories of it • To understand the concepts through Human resource • To enforce the skills about human resource management as per organizational policies

FYBBA (CA) SEM II	CA-202	Financial Accounting	<ul style="list-style-type: none"> • Helps students to acquire sound knowledge of basic concepts of accounting • To aware students with the financial accounting and related concepts • To develop basics of accounting and account keeping • To improve the skills about to manage account and maintain account of organization • To gain the knowledge of recent applications of accounting • Gains basic accounting knowledge Impart the knowledge about recording of transactions and preparation of final accounts. • Acquaint the students about accounting software packages (Tally)
	CA-203	Business Mathematics	<ul style="list-style-type: none"> • Students learned basics of fundamental math's • To solve mathematical problems and make solutions • Studied business problems and conversion into business math's • Learned the concept of LPP and transportation problem • Implement the problem-solving ability and through basics of business mathematics • To find out the solutions and implement all mathematical concepts to solve problems • Studied matrices and determinants and solve issues
	CA-204	Relational database	<ul style="list-style-type: none"> • Students get the knowledge of Relational Database concepts which is the basic requirements of every organization. • Student will get the knowledge to acquire job oriented capability • Students can go for certification too which helps to get good opportunities in them carrier. • Students will be able to write SQL queries for a given context in relational database • Students will be able to apply and relate the concept of transaction, concurrency control and recovery in database. • Students will be able to recognize and identify the use of

			normalization and functional dependency, indexing and hashing technique used in database design.
	CA-205	Web Technology HTML-JS-CSS	<ul style="list-style-type: none"> • Give students the basic understanding of how things work in the Web world from the technology point of view as well as to give the basic overview of the different technologies. <ul style="list-style-type: none"> • To achieve the knowledge about basic web technologies liker HTML, CSS, XML. • To utilize these technologies in Project work and to develop small websites • To gain detailed knowledge of these scripting and utilize as per industrial requirements. • To prepare students to gain the advanced wed technologies and utilize them • To fulfill the requirements of society of all online platform with the web development
	CA-206	Practical Based on 204-205	<ul style="list-style-type: none"> • Database Management Creating Views Creating Column Aliases Creating Database Users Using GRANT and REVOKE Cursors in Oracle PL / SQL Writing Oracle PL / SQL Stored Procedures, trigger, cursor, function. • Retrieving Data from a Database the SELECT statement Using the WHERE clause Using Logical Operators in the WHERE clause Using IN, BETWEEN, LIKE, ORDER BY, GROUP BY and HAVING Clause Using Aggregate Functions Combining Tables Using JOINS Sub queries • Creating Database Creating a Database Creating a Table Specifying Relational Data Types Specifying Constraints Creating Indexes <ul style="list-style-type: none"> • Design and develop any suitable web application using HTML, CSS and XML • Perform validation of all fields by using Java Script and J Query • Add all dynamic web application essence in Servlet, JSP, MYSQL, PHP, AJAX.

		CA-301	Digital Marketing	<ul style="list-style-type: none"> • Students will able to implement best practices for creating, measuring, and optimizing display ad campaigns. • Students will able to effectively build users lists, deliver e-mails & generate relevant clicks. • Understand mobile marketing measurement and analytics. • Make business decisions from the metrics available in Digital Media. • Students will able to analyses cross-cultural and ethical issues in globalized digital markets. • Students will able to Comprehend the importance of conversion and working with digital relationship marketing
	SYBB A (CA) Sem-III	CA-302	Data Structure	<ul style="list-style-type: none"> • Students get the knowledge of data structures using c programming • Students get brief knowledge of data structure Tree, Graph, Linked List, Array, Stack, Queue • Students will able to use the appropriate data structure in context of solution of given problem. • Students will able to learn the basic types for data structure, implementation and application. • Students will able to analyze algorithms and algorithm correctness. • Students will able to summarize searching and sorting techniques
		CA-303	Software Engineering	<ul style="list-style-type: none"> • Students are knowledgeable of the ethics, professionalism, and cultural diversity in the work environment. • Students can prepare and publish the necessary documents required throughout

			<ul style="list-style-type: none"> the project lifecycle. Students can effectively contribute to project discussions, presentations, and reviews. To enhance ability to develop Problem solving Skills To develop things to act as good team member for software development Students will be able to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
	CA-304	Angular JS /PHP	<ul style="list-style-type: none"> Give students the basic understanding of how things work in the Web world from the technology point of view as well as to give the basic overview of the different technologies. Understand how to develop web-based applications. To develop students for advanced web technologies to develop web applications and websites Students get detailed knowledge about dynamic web sites and get implemented through project work. To improve the skills of web development Students are able to work in web-based environments
	CA-305	Block chain	<ul style="list-style-type: none"> Blockchain technology landscape Applications and implementation strategies State-of-the-art, open research challenges, and future directions Learn about Bitcoin, Cryptocurrency, Ethereum Design, build, and deploy smart contracts and distributed applications Integrate ideas from blockchain technology into their own projects.
	CA-306	Practical Based on 303, 304 and 305	<ul style="list-style-type: none"> To solve issues using programming logics To aware students to crypto currency and their logics To enhance logical ability and to solve digital currency logical development To gain logical gain of currency and its transfer and use of Ethereum To implement advanced scripting technologies like angular JS to develop

				<p>dynamic web pages</p> <ul style="list-style-type: none"> To use appropriate database with the use of blockchain and data structure like tree and graph.
		CA-307	Environmental Awareness	<ul style="list-style-type: none"> To develop students, approach to save environment To enhance ability to develop environmental awareness To know about global warming and measures to avoid it To know about various environmental things to protect it Capture the knowledge and aware the peoples to protect the environment To gains the facts and develop policies to protect enviroment
	SYBBA (CA) Sem-IV	CA-401	Networking	<ul style="list-style-type: none"> Students can get job as a NetworkAdministrator in any organization. Students will able to analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions. Students will able to Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles Students will able to understand the concepts of Data Communication. Students will able to understand fundamental concepts in Routing, Addressing & working of Transport Protocols. Students will able to understand Wireless LANs & Wireless Sensor Networks Operation.
		CA-402	Object Oriented Concepts Through CPP	<ul style="list-style-type: none"> To learn basic object-oriented concept To write C++ programs that use object-oriented concept such information hiding, constructors, destructors. To know Inheritance, Polymorphism and its implementation in programming Basic understanding of Template and Exception handling To gain the basics of object-oriented programming and file

				<p>handling so they can work with same environment</p> <ul style="list-style-type: none"> • To develop the skills and utilize them with practical knowledge
		CA-403	Operating System	<ul style="list-style-type: none"> • To know system programming • Helps to understand services provided by operating system • To know Scheduling concept and scheduling algorithm

			<ul style="list-style-type: none"> • Helps to understand deadlock detection, prevention, avoidance • To develop the knowledge of operating system concepts and its real time use. • To know memory management in operating systems
	CA-404	Node JS /Advanced PHP	<ul style="list-style-type: none"> • Give students the basic understanding of how things work in the Web world from the technology point of view as well as to give the basic overview of the different technologies. • Understand how to develop web-based applications. • To develop students for advanced web technologies to develop web applications and websites • Students get detailed knowledge about dynamic web sites and get implemented through project work. • To improve the skills of web development • Students are able to work in web-based environments
	CA-405	Project Based on Web tech.	<ul style="list-style-type: none"> • To develop the skills for actual implementation of programming languages • To improve the database management skills and utilize them • To formulate real world problems and frame them into problem solving projects • To develop the application and solve the problems using computerized applications support • To enhance students to gain knowledge of real-world things as well as formulate them into computerized way • To implement the theoretical knowledge into programming and problem solving, user-friendly project work
	CA-406	Practical based on 403 and 404 (B)	<ul style="list-style-type: none"> • To introduce students for object-oriented programming language- CPP • To enhance logical ability towards real world problem solving • Introduction of object-oriented concepts like polymorphism, Inheritance, object and class • To improve a knowledge of Angular JS through Node JS • To enhance dynamic web pages for website development using

				<p>this technology</p> <ul style="list-style-type: none"> • To organize and solve real world issue using both the Technologies
TYB BA (CA)	CA-501	Cyber Security	<ul style="list-style-type: none"> • Have a good understanding of Cyber Security and the Tools. • Identify the different types of Cyber Crimes. • Have a good understanding of Cyber laws • To develop Cyber forensics awareness. • Identify attacks, security policies and credit card frauds in mobile and Wireless Computing Era • To Understand the Worldwide Cyber Security Measures and prevention techniques 	
	CA-502	Object Oriented Software Engineering	<ul style="list-style-type: none"> • Students will be able to give Design Specifications for Project. • Students will acquire Knowledge in Basic Modelling. • Students will acquire Project Management Skills • To introduce new diagrammatic presentations using object-oriented concepts like UML diagram, Case-Study diagram, activity diagram • To enhance knowledge of modelling and utility diagram • To introduce complete knowledge of object-oriented software development 	
	CA-503	Core Java	<ul style="list-style-type: none"> • Able to solve real world problems using OOP techniques. • Able to understand the use of abstract classes. • Able to solve problems using java collection framework and I/O classes. • Able to develop multithreaded applications with synchronization. • Able to develop applets for web applications. • Able to design GUI based applications 	
	CA-504(B)	Python	<ul style="list-style-type: none"> • Define and demonstrate the use of built-in data structures “lists” and “dictionary”. • Design and implement a program to solve a real-world problem. • Design and implement GUI application and how to handle exceptions and files. 	

			<ul style="list-style-type: none"> • To enhance the knowledge of programming using Python • To develop the skills of python language • To capture the and develop the skills to solve real world problems using python language
	CA-505	Project work	<ul style="list-style-type: none"> • To develop the skills for actual implementation of programming languages • To improve the database management skills and utilize them • To formulate real world problems and frame them into problem solving projects • To develop the application and solve the problems using computerized applications support • To enhance students to gain knowledge of real-world things as well as formulate them into computerized way • To implement the theoretical knowledge into programming and problem solving, user-friendly project work
	CA- 506	Practical Based on 503 and 504	<ul style="list-style-type: none"> • Students will be able to Create user interactive web pages using ASP.Net. • Students will be able to Create simple data binding applications using ADO.Net connectivity. • Students will be able to Performing Database operations for Windows Form and web applications. • Develop programs using GUI Framework (AWT and Swing). • Develop programs to handle events in Java Programming. • Develop programs using database.
	CA 507 -	IOT	<ul style="list-style-type: none"> • To explain key technologies, smart objects, IoT Architecture and security in Internet of Things • To illustrate the role of IoT protocols for efficient network communication. • To understand IoT platform such as Arduino Uno. • To Identify sensor technologies for sensing real world entities and understand the role of IoT in various domains of Industry • Interpret the impact and challenges posed by IoT networks leading to new architectural models. • Infer the role of Data Analytics and Security in IOT

		CA-601	Recent Trends in IT	<ul style="list-style-type: none"> • To apply basic, intermediate and advanced techniques to mine the data. • To provide an overview of the concept of Spark programming. • Students will be able to understand and implement classical models and algorithms in data warehouses and data mining • Students will be able to Characterize the kinds of patterns that can be discovered by association rule mining, classification and clustering. • Students will be able to understand the informed and uninformed problem types and apply search strategies to solve them. • Students will be able to apply difficult real-life problems in a state space representation so as to solve them using AI techniques like searching and game playing
		CA-602	Software Testing	<ul style="list-style-type: none"> • Students will be introduced to testing tools. • Students will acquire Knowledge of Basic SQA. • Students will be able to design basic Test Cases. • To develop learner with knowledge in Software Testing techniques. • To gain the testing methods can be used as an effective tool in providing quality assurance for software. • To understand the Cyclomatic Complexity Metrics with testing techniques
		CA-603	Advanced Java	<ul style="list-style-type: none"> • Students will know the concepts of JDBC Programming. • Students will know the concepts of Multithreading and Socket Programming. • Students will know the concepts of Spring and Hibernate. • Students will develop the project by using JSP and JDBC. • Students will develop applications in Spring and hibernate. • Student Should aware the industry-based Programming logics

		CA-604 (B)	Dot Net Framework	<ul style="list-style-type: none"> • Students will able to use the features of Dot Net Framework along with the features of VB, C# and ASP • Students will able to design and develop window based and web-based .NET applications. • Students will able to Design and develop a website. • Students will able to design and Implement database connectivity using ADO.NET for VB, C# and ASP • Students will be able to use ASP.NET controls in web applications • Students will be able to Configure and deploy Web Application
		CA-605	Software Project	<ul style="list-style-type: none"> • To develop the skills for actual implementation of programming languages • To improve the database management skills and utilize them • To formulate real world problems and frame them into problem solving projects • To develop the application and solve the problems using computerized applications support • To enhance students to gain knowledge of real-world things as well as formulate them into computerized way • To implement the theoretical knowledge into programming and problem solving, user-friendly project work
		CA-606	Practical Based on 603 and 604	<ul style="list-style-type: none"> • Students will be able to Create user interactive web pages using ASP.Net. • Students will be able to Create simple data binding applications using ADO.Net connectivity. • Students will be able to Performing Database operations for Windows Form and web applications. • Develop programs using GUI Framework (AWT and Swing). • Develop programs to handle events in Java Programming. • Develop programs using database.
		CA-607 (Add-On)	Soft Skill	<ul style="list-style-type: none"> • Understand the significance and essence of a wide range of soft skills • Learn how to apply soft skills in a wide range of routine social and professional settings. • Learn how to employ soft skills to improve interpersonal relationships. • Learn how to employ soft skills to

				<p>enhance employability and ensure workplace and</p> <ul style="list-style-type: none">• career success.• To introduce skill based and knowledge-based education to create good logical views.
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Short Term Course Outcomes

Name of the Department	Class	Course Name	Course Outcome
BBA(CA)	FYBBA (CA)	Digital Marketing	<ul style="list-style-type: none"> • Students are able to implement best practices for creating, measuring, and optimizing display ad campaigns. • Students are able to effectively build users lists, deliver e-mails & generate relevant clicks. • Understand mobile marketing measurement and analytics. • Make business decisions from the metrics available in Digital Media.
	SYBBA (CA) and TYBBA (CA)	PHP	<ul style="list-style-type: none"> • Students are able to creating foundational to advanced developmental environment • Working with data in PHP • Moving from Foundational to Advanced development • Using Server-Side scripting using PHP development • Formatting a development for appearance • Adding value to analysis • Advanced techniques, tips, and tricks for PHP