



SHIKSHAN MAHARSHI DR. D.Y. PATIL SHIKSHAN SANSTHA'S

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COLLEGE OF COMPUTER & BUSINESS STUDIES

(Affiliated to Savitribai Phule Pune University)

AISHE CODE: C-41976

PUNCODE: CAAP014520

**Academic Year 2024-25 Department of
Computer Application
Course outcomes (Semester-wise)**

FYBCom(C A) Sem- III	PSC101T		Problem Solving Using C	<ol style="list-style-type: none"> 1. Define algorithms and explain their characteristics 2. Formulate algorithm and draw flow chart to solve a given problem 3. Explain use of appropriate data types, control statements 4. Demonstrate ability to use top-down program design
	DBM102T		Database Management System	<ol style="list-style-type: none"> 1 To understand the basic concepts and the applications of database systems 2 To formulate Queries using SQL and Relational Formal Query Languages
	OE101CA		Business Mathematics	<ol style="list-style-type: none"> 1 Explore theoretical approach in practical situations 2 To have better problem-solving skills 3 To use effectively all the concepts in business 4 It will help students to develop the logic and quantitative thinking
	OE102CA		Principles and Practice of Management	<ol style="list-style-type: none"> 1. Use of available resources to achieve productive results at minimum cost and maximum profits 2. To use effectively all the concepts in business 3. Do effective administration by channelizing resources (human and material) 4. To manage crucial situations



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	VSC101CA		Office Automation tools	<ol style="list-style-type: none"> 1) The students will be able to use various Office Automation Tools like MSWord, MS Excel & MS PowerPoint 2) Use of modern office equipment in business or any office is intended to facilitate faster processing and delivery of information, accurate analysis of facts and figures, higher efficiency and productivity, and elimination of fatigue arising from performing repetitive jobs manually. Office Automation Tools help in Word processing, Worksheet and presentation
	SEC101CA		Programming Principles and Algorithm	<ol style="list-style-type: none"> 1) To understand how to use programming in day-to-day Applications 2) To apply skills of algorithm and flowchart to solve the businesses problem
	AEC101T		Business Communication Skills-I	<ol style="list-style-type: none"> 1) To understand the concept, process, and importance of communication 2) To apply gain knowledge of media of communication in businesses 3) To develop skills of effective communication - both written and oral
	VEC101T		Environmental Awareness	<ol style="list-style-type: none"> 1) To understand Environmental pollution. 2) To apply and promote green practices at home and at work



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		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



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				<p>the project lifecycle.</p> <ul style="list-style-type: none"> • 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.



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		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



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	SYBBA (CA) Sem- IV	CA-401	Networking	<ul style="list-style-type: none"> • Students can get job as a Network Administrator in any organization. • Students will be able to analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions. • Students will be able to Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles • Students will be able to understand the concepts of Data Communication. • Students will be able to understand fundamental concepts in Routing, Addressing & working of Transport Protocols. • Students will be 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 as 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



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				<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



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		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
		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



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	TYB BA (C A)	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



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		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



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		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



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		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



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		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



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				<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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