



Palus Shikshan Prasarak Mandal's
Arts, Commerce & Science College, Palus

Tal. Palus, Dist. Sangli, (Maharashtra) 416310 ☎: (02346) 226226.

(Affiliated to Shivaji University, Kolhapur)

DBT STAR College Scheme Assisted, NAAC Reaccredited with CGPA-2.67(B+)

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B.A., B.Com, B.Sc., B.B.A., B.C.A., B.C.S., M.A., M.Com., M.Sc., PGDCA.

Principal, Dr. R. S. Salunkhe M.A., M.Com., M.Phil., Ph.D., SET., M.B.A., D.Litt.

Outward No.: Mahavi/ /F- /

BCA I CO's & PO's

Program Outcomes (PO's):- After completion of program Students / graduates will be able to:

- PO1: Apply knowledge of ICT in solving business problems.
- PO2: Learn various programming languages and custom software.
- PO3: Design component, or processes to meet the needs within realistic constraints.
- PO4: Identify, formulate, and solve problems using computational temperaments.
- PO5: Comprehend professional and ethical responsibility in computing profession.
- PO6: Express effective communication skills.
- PO7: Recognize the need for interdisciplinary, and an ability to engage in life- long learning.
- PO8: Knowledge of contemporary issues and emerging developments in computing profession.
- PO9: Utilize the techniques, skills and modern tools, for actual development process.

Course Outcomes:-

Mathematics Foundation To Computer Science - I

- CO1: Provide a basic understanding of fundamental mathematical concepts such as sets, functions, matrix algebra, and discrete mathematics.
- CO2: This course enables the students to use mathematical models and techniques to analyze and understand problems in computer science.
- CO3: This course demonstrates how the mathematical principles give succinct abstraction of computer science problems and help them to efficiently analyze.

Problem Solving Techniques

- CO1: Understand basic terminology of computers, problem solving, programming Languages and their evolution (Understand)
- CO2: Create specification from problem requirements by asking questions to disambiguate the requirement statement. (Create)
- CO3: Design the solution from specification of a problem and write pseudo code of the algorithm using basic building blocks or structured programming constructs (Sequence, Selection and Repetition statement). (Create)
- CO4: Translate an algorithm into a C computer program (Create)
- CO5: Testing and analyzing programs using debugging tools. (Analyze)

Computer Architecture

CO1: To Understand the basics of Digital Electronics and Binary Number System

CO2: To Learn the implementation of Combinational Circuit.

CO3: To Learn the implementation of Sequential Circuit.

CO4: To Understand the Organization of basic computers and concept of memory organization

General English

CO1: Explain concept of Word Formation in English Language.

CO2: Illustrate use of phrases and clauses in sentences in English Language.

CO3: Identify common errors in English Writing.

CO4: Develop reading and listening, writing and speaking skills.

Indian Vision for Human Society

CO1. Explain the concept of “Vasudhaiva Kutumbkam” and its realization process as an base for the development of vision for a human society.

CO2. Identify the universality in humans and its coexistence in existence.

CO3. Demonstrate the sense of responsibility, duties, and participation of individual for establishment of fearless society.

CO4. Explain the apparently rational, verifiable and universal solution from ancient Indian knowledge system for the holistic development of physical, mental and spiritual wellbeing of one and all, at the level of individual, society, nation and ultimately the whole world.

Environmental Science And Sustainability

CO1. Explore the basic environmental concepts and issues relevant to the business and management field.

CO2. Recognize the interdependence between environmental processes and socioeconomic dynamics.

CO3. Determine the role of business decisions, policies, and actions in minimizing environmental degradation.

CO4. Identify possible solutions to curb environmental problems caused by managerial actions.

CO5. Develop skills to address immediate environmental concerns through changes in business operations, policies, and decisions.

मराठी (MARATHI)-१ उद्यम झेप-१

CO1. मराठी भाषा व साहित्य अभ्यासाची अभिरुची निमाणाण होईल .

CO2. मराठी साहित्याचे आकलन विश्लेषण व समीक्षण करता येईल .

CO3. मराठी किवतेचे आस्वादन व मूल्य निणाय करता येईल .

CO4. वैचारक व लिलत स्वरूपाचे लेखन करता येईल .

CO5. पत्रव्यवहाराचे कौशल्य अवगत होईल .

Mathematics Foundations To Computer Science – II

CO1: This course helps the students to understand correct lines of arguments and proofs.

CO2: This course introduces mathematical techniques that are foundations for understanding advanced computational methods, including numerical methods and optimization.

C03: This course helps the students to understand various problem-solving strategies and methods to tackle both theoretical and practical challenges in computer science.

Data Structures

C01: Understand the fundamental concepts of Data Structures and their applications.

C02: Develop problem-solving skills using Data Structures.

C03: Implement Data Structures using C programming language.

Operating Systems

C01: Explain the fundamentals of the operating system.

C02: Comprehend multithreaded programming, CPU scheduling, process management, process synchronization, memory, deadlocks, and storage management.

C03: Compare the performance of CPU scheduling algorithms

C04: Identify the features of I/O and File handling methods.

Object Oriented Programming Using Java

C01: To introduce the object oriented programming system concepts.

C02: To introduce syntax and semantics of Java programming language.

C03: To develop modular programs using Java.

C04: To setup JDK environment to create, debug and run Java programs.

Web Technologies

C01: To understand the concepts and architecture of the World Wide Web, Markup languages along with Cascading Style Sheets.

C02: To understand the concepts of event handling and data validation mechanisms.

C03: To understand the concepts of embedded dynamic scripting on client side programming.

C04: To develop modern interactive web applications.

Indian Constitution

C01. Explain concept of the Indian Constitution, particularly from the perspective of economic governance and business

C02. Employ advanced analytical framework about ongoing constitutional debates and battles which affect the domain of business

C03. Develop a sense of how questions of economic growth have to be balanced with other constitutional commitments, including social and economic justice.

मराठी (MARATHI)-2 उद्यम झेप-2

C01. मराठी भाषा व साहित्य अभ्यासाची अभिरुची निमाणाण होईल .

C02. मराठी साहित्याचे आकलन विश्लेषण व समीक्षण करता येईल .

C03. मराठी किवतेचे आस्वादन व मूल्य निणाय करता येईल .

C04. वैचारक व लिलत स्वरूपाचे लेखन करता येईल .

C05. पत्रव्यवहाराचे कौशल्य अवगत होईल.

BCA-II (SEM-III)

RDBMS CC301

C070: Describe the fundamental elements of Relational Database Management Systems.

C071: Explain various commands, sub queries & joins in SQL with example.

C072: Enhance programming skills and techniques using PL/SQL

C073: To solve database problems using PL/SQL by using Cursors and Triggers.

Computer Network and Internet CC 302

C074: Understand the concept of computer network.

C075: Identify different components required to build different networks.

C076: Recognize the functions of network layers and different protocols.

C077: Discuss the important features of the Internet and Web.

Data Structure using 'C' CC303

C078: Use and implement appropriate data structure for the required problems using a programming language such as C.

C079: Understand various searching & sorting techniques.

C080: Implementing various data structures Stacks, Queues 4. Implementation of Linked Lists and Trees.

Elements of Statistics AEC304

C081: Represent the data in pictorial and graphical form.

C082: Describe and understand the data with the help of various measures of data.

C083: Analyze bivariate data

C084: Understand the concept of probability and probability distributions.

Human Resource Management and Materials Management AEC305

C085: Understand HR Management and planning.

C086: Describe process of Appraisal/training and Development.

C087: Recognize Integrated approach to Material Management and computer applications in Material Management.

C088: Demonstrate 5 R in purchasing and Inventory control techniques.

CC L306 Lab Course Based CC301

C089: Design database for business applications and Use of queries

C090: Apply advanced SQL features and Analyze PL/SQL structures

CCL307 Lab Course based on CC303

C091: After completion of this course student should be able to 1. Implement various data structures Like Stacks, Queues, Linked Lists.

C092: Applying various searching techniques using data structure

BCA-II (SEM-IV)

Object Oriented Programming with C++ (401)

C093: Understand object-oriented programming and advanced C++ concept.

C094: Apply the concepts of object, classes and constructor.

C095: Design C++ Programs based on object, class, inheritance, abstraction, encapsulation, dynamic binding and polymorphism.

C096: Implement concept of polymorphism in program.

Software Engineering CC 402

C097: Understand life cycle models, requirement elicitation techniques, understand the concept of analysis and design of software.

C098: Develop SRS document.

C099: Use of analysis and design tools for system development.

C0100: Apply software engineering concepts in software development to develop quality software.

PHP CC403

C0101: Understand the basics of PHP programming language and its role in web development.

C0102: Implement functions and arrays in PHP to solve programming problems.

C0103: Design web forms using HTML and process user input using PHP.

C0104: Execute file uploads and perform file handling operations in PHP applications.

Entrepreneurship Development AEC 404

C0105: Define characteristics, function and types of entrepreneurs and know the role of Entrepreneurship in Economic Development. They should know the

importance of women entrepreneurs.

CO106: Identify Business Opportunities and prepare business plan

CO107: Know project finance agencies.

CO108: Understand New Opportunities and Challenges in digital entrepreneurship

Enterprise Resource Planning (ERP) AEC-405

CO109: Understand concept, need and significance of ERP

CO110: Learn different concept regarding ERP implementation

CO111: Understand ERP models and related technologies

CO112: Describe popular products and future trends in ERP.

CCL 406 Lab Course-VII Based on CC401

CO113: Apply the concepts of object-oriented programming

CO114: Illustrating the functions, objects and process of data manipulations using C++

CCL407 Lab Course-VIII based on CC-403

CO115: Acquire the ability to analyze problems, design algorithms and implement solutions using PHP.

CO116: Develop the ability to design and implement PHP programs that interact with user inputs, perform calculations and generate dynamic web contents.

AEC 408 Mini Project

CO117: Implement fundamental domain knowledge of core courses for developing simple business applications.

CO118: Utilize the software development techniques, skills and modern tools.

BCA-II (SEM-V)

Java Programming CC 501

CO119: Understand the features of Java Language

CO120: Demonstrate Object-Oriented Programming using Java

CO121: Develop Multithreaded and Networking applications

CO122: Design GUI applications using AWT and Swing.

Data Warehousing and Data Mining CC502

CO123: Define the Data warehouse architecture and its Implementation.

CO124: Describe the Architecture of a Data Mining system.

CO125: Understand the various Data preprocessing Methods.

CO126: Perform classification and prediction of data

DOT NET Technology CC 503

CO127: Understand features of C# DOT NET

CO128: Implement various server controls for website development

CO129: Apply validation and state management for interactive website development

CO130: Design and develop dynamic web application using ADO.Net

Linux DSE 504.3

CO131: Understand the basic components of Operating Systems and their interactions.

CO132: Explain the structure and functions of operating systems along with their components, types and working.

CO133: Understand the basics of File, Device and Disk Storage Management in Linux

CO134: Learn Shell Programming through Linux

Management Information System GE505.2

CO135: Understand the fundamental principles of information systems

CO136: Describe the types of management and decision making

CO137: Demonstrate different types of IS used in business.

CO138: Explain various applications of MIS

Lab Course IX based on CC501

CO139: Implement the Concept of OOP in Java through simple programs.

CO140: Implementation and Evaluation of concept related to class and inheritance, concept of Multiprogramming and Exception Handling.

Lab course-X Based on CC504 and CC503

CO141: Design console applications using C#.

CO142: Design web application using ASP.Net

B.C.A Part-III (Sem-VI)

Python Code: CC 601

CO143: Acquire programming skills in core Python.

CO144: Develop Python programs with conditionals and loops.

CO145: Understand advance datatypes in Python Programming. 4. Develop problem solving skills and their implementation through Python.

IT Security CC 602

CO146: Understand the concept and need of IT security.

CO147: Identify different security threats to information systems.

CO148: Describe security controls used for IS security.

CO149: Understand provisions in IT Act 2000 and Design Security policy for IT Enabled Organization.

R Programming DSE 603.3

CO150: Understand the fundamental syntax of R through practice exercises.

CO151: Describe the control statements and functions in R.

CO152: Analyze a data set in R and represent findings using the appropriate R packages.

CO153: Use data visualization tools.

IT Management GE 604.1

CO154: Understand IT assets and describe functions of IT Department

CO155: Identify IT infrastructure components.

CO156: Describe network infrastructure components and security management activities.

CO157: Demonstrate best practices and operational processes in Data Centre Management.

Cloud Computing GE604.2

C0158: Understand the fundamental principles of Cloud Computing.

C0159: Understand the importance of virtualization in distributed computing and how this has enabled the development of Cloud Computing.

C0160: Explain the core concepts of the cloud computing paradigm: how and why this paradigm shift came about, the characteristics, advantages and challenges brought about by the various models and services in cloud computing.

Lab Course-XI Based on CC 601

C0161: Demonstrate and use different Data types in Python.

C0162: Apply various built looping statements and Modules provided by Python.