

## JAI HIND COLLEGE

Basantsing Institute of Science & J. T. Lalvani College of Commerce. and Sheila Gopal Raheja College of Management.

## **Autonomous**

**Program Name:** Bachelor of Vocation (B.Voc in Software Development)

## PROGRAM OBJECTIVES:

PO1: To develop adaptability of new technologies like use of Modern tools, resources and software and apply possessed knowledge of fundamental subjects which will enable students to be 'Future technology ready'.

PO2: To develop logical and analytical thinking in-order to solve Complex scientific problems by using mathematical and statistical tools and techniques.

PO3: To inculcate techniques for data analysis and security awareness by examining data sets with appropriate consideration to security and privacy.

PO4: To instill and nurture research aptitude and analyze various research and scientific problems in the field of IT, exhibit professional ethics and norms of software development

PO5: To empower students in implementing computing-based solution.

PO6: To inculcate entrepreneurial interests through experiential learning and business knowledge and function individually and in teamwork by various live project assignments.

PO7: To enable students to acquire desired competency levels, transit to the job market and, at an opportune time, return for acquiring additional skills to further upgrade competencies, as well as, find opportunities to work not only in India but also abroad.

PO8: To recognize the need for, and have the preparation and ability to engage in independent and lifelong learning in the broadest context of technological change

PO9: To empower students to communicate effectively with the society at large, such as, being able to

comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO10: To understand the impact of the professional software engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO11: To recognize the applicability of computing and evaluate its impact on individuals, organizations, and global society.

PO12: To empower students to demonstrate knowledge understanding of the scientific and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO13: To enable students with capabilities for designing and developing computer programs/computer - based systems in the areas related to networking and web design.

PO14: To enable students to use writing, financial/statistical, presentation and data collecting/organization tools for academic research and communication.

PO15: To apply a wide variety of learning algorithms and develop capabilities to design and develop formulations for computing models and identify its applications in diverse areas. Understand how to evaluate models generated from data. Apply the algorithms to a real problem, optimize the models learned and report on the expected accuracy that can be achieved by applying the models.

## **COURSE OUTCOMES:**

CO1: Apply the Socio-Cultural Sensitization on Soft Skills development.

CO2: Analyze Situational Communication in French and Role Play

CO3: Use MS Office tools for professional documentation preparation and analysis

CO4: Apply critical thinking and problem-solving skills required to successfully design and implement a web site.

CO5: Identify established techniques for automated reasoning and the algorithms involved

CO6: Constructs Software engineering testing and risk strategies, and develops their appropriate applications.

CO7: Interpret the concepts of Object-Oriented Programming and data structures

CO8: Define cultural negotiations, global leadership & motivational issues – cultural difference in ethics & decision making.

CO9: Summerize Societal marketing concept, Impacts of marketing concepts and its applicability

CO10: Understand the basic protocols of computer networks, and how they can be used to assist in network design and implementation

CO11: Demonstrate the software structure like abstraction, modularity, interface vs. implementation, layers

CO12: Recognize the principal concepts of calculus.

CO13: Implement the database connectivity and advanced java programming skills

CO14: Design ER-models to represent simple database application scenarios

CO15: Understand the principles underlying cryptographic concepts and technologies available today, including symmetric and asymmetric encryption, hashing, and digital signatures.

CO16: Evaluate workplace to determine the existence of occupational safety and health hazards

CO17: Understand social media marketing, search engine optimization, Freelancer affiliate Marketing, Google Adwords, create advertising campaigns on google

CO18: Develop software in the java programming language.

CO19: Demonstrate various techniques of web development and design also develop a complete website.

CO20: Discuss different routing protocols.

CO21: Design SQA activities, SQA strategy, formal technical review report for software quality control and assurance.

CO22: Identify various financial services and the various types of insurances available 23. Identify and discuss the concepts and procedures of sampling, data collection, analysis and reporting.

CO24: Discuss current Issues and trends in HRM

CO25: Develop software with reasonable complexity on mobile platform 26. Implement MVC based web applications using ASP.NET

CO27: Design and implement appropriate security technologies and policies to protect computers and digital information

CO28: Enhance the knowledge and understanding of Database analysis and design. 29. Implement strategy formulation.

CO30: Develop unconventional talents and skills

CO31: Recognize layout designs, digital illustration, color theory, typography, image manipulation, branding, packaging and advertising

CO32: Demonstrate forensic tools and case studies

CO33: Design, code, review, test, debug and document own programs.

CO34: Summarize big Data and Hadoop ecosystem

CO35: Demonstrate theory of computation and computational models including decidability and intractability

CO36: Understand masking techniques in Flash

CO37: Implement comprehension & technical writing

CO38: Demonstrate the power of data analytics using case studies

CO39: Identify the basic concepts in Neural Networks and applications

CO40: Describe raspberry Pi Components and interface and its installation.

CO41: Evaluate NoSQL database development tools and programming languages.

CO42: Implement the Concept of optimization and classification of optimization problems.