BISHOP COTTON WOMEN'S CHRISTIAN COLLEGE
C.S.I Karnataka Central Diocese
#19,3rd Cross, C.S.I Compound, Mission Road, Bengaluru – 560027
Affiliated to Bengaluru City University

Contact No: 080 – 22212933/22129880
Email: principal@bcwcc.edu.in Website: www.bcwcc.edu.in

DEPARTMENT OF COMPUTER APPLICATION

PROGRAM OUTCOMES

PO1:- Computing knowledge and Practical applications: Recognize and appreciate the role of computing in a wide variety of fields by distinguishing the structure and functions of modern computer systems in terms of hardware and software.

PO2:- Project Management: Demonstrate structure of scientific principles in multidisciplinary environment.

PO3:- Ethics and Communication: Apply ethical principles and communicate effectively on complex activities with the scientific approach.

PO4:- Modern Technical Tools Usage: Create, select and apply appropriate techniques, resources in modern computing including modeling to advanced scientific activities.

PO5:- Life-long Learning: Recognize the need and apply to engage in independent and life-long learning in the broadcast context of technological change.

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DEPARTMENT OF COMPUTER SCIENCE

COURSE OUTCOMES

I SEM: PROBLEM SOLVING TECHNIQUES

1. Describes basic programming techniques and elements.
2. Explains the programming techniques.
3. Explains programming techniques.
4. Describes pointers, structures, and other derived data types.
5. Explains file management techniques.

I SEM: DATA STRUCTURES

1.Understand the introduction and overview of programming.
2.Understand and apply the array representation
3. Understand and apply the concept of Linked lis
4. Understand and describe the implementation of the stack.
5.Describe and apply the concept of graph and tree.

I SEM: DISCRETE MATHEMATICS

1.Describes Set, Relation, function, and mathematical logic
2. Explains the fundamental concepts of matrix and various operations and application of matrix
3. Explains the concept of the logarithm, permutation, and combination
4. Describes the concept of group and its various operation
5. Explains the basic concept of analytical Geometry in two Dimensions

II SEM: DATA BASED MANAGEMENT SYSTEM

1.Describes the basics of the database management system.
2. Explains the concepts of diagrammatic representation
3. Explains programming techniques
4. Describes SQL and PL/SQL.

5: Explains transaction processing concepts and interleaving techniques, locks, etc.

II SEM: COMPUTER ARCHITECTURE

1.Explain the digital logic circuits

2. Apply the data representation

3. Understand the basic computer organisation and design

4. Describe the central processor organization

5. Understand the input-output organisation

II SEM: OOP'S USING JAVA

1.Understand the basic concepts of the Internet and the history of Java

2.Clarify the concepts of arrays, classes, strings, and vectors

3. Understand the concept of Interface and Packages

4. Understand the logic of Exceptions and Applet

5. Understand the concept of Graphics programming

III SEM: COMPUTER NETWORKS

1.Understands basic concepts of networking and digital transmission

2. Explains the properties of media and various transmission systems

3. Understands the concept of Peer-to-Peer protocols and service models

4. Describes Local Area Networks and Medium Access Control Protocols

5. Understand LAN standards, wireless LANs, packet network topology with an overview of routing and congestion in packet.

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III SEM: OPERATING SYSTEM

1.Describes the internal architecture Operating System.

2. Explains the concepts of Process Synchronization and deadlock.

3. Explains memory management system.

4.Describes file and disk management.

5. Explains the protection and security of the system.

IV SEM: SOFTWARE ENGINEERING

1.Explain Software Products and Software process, Process models

2. Software Prototyping and Software Design

3. Understand Object-Oriented & function-oriented design

4. Describe Software Reliability and reusability

5. Understand Software Verification and Validation

IV SEM: INTERNET TECHNOLOGIES

1.Understand the basic concepts of Internet and web browser

2. Clarify the HTML & XHTML

3. Understand the concept of Javascript

4.Understand the principle of the DOM model

5. Understand the concept of DDL

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V SEM: ARTIFICIAL INTELLIGENCE

1. Understand the various characteristics of problem-solving agents and apply problemsolving through search for AI applications.
2. Appreciate the concepts of knowledge representation using Propositional logic and predicate calculus and apply them for inference/reasoning.
3. Obtain insights about Planning and handling uncertainty through probabilistic reasoning and fuzzy systems.
4. Understand basics of computer vision and Natural Language Processing and understand their relevance in AI applications.
5. Obtain insights about machine learning, neural networks, deep learning networks andtheir significance.

V SEM: DATA ANALYTICS

1. Explore the fundamental concepts of data analytics
2. Recognize and conduct statistical inference to solve engineering problems.
3. Summarize and present data in meaningful ways
4. Select the appropriate statistical analysis depending on the research question at hand
5. Effectively and clearly communicate results from analyses performed to others

VI SEM: WEB PROGRAMMING

1. Understand the basics of Web Programming concepts
2. To build dynamic web pages with validation using JavaScript objects and by applying different event-handling mechanisms.
3. Analyze various PHP library functions that manipulate files and directories.
4. To develop modern interactive web applications using PHP and XML

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VI SEM: QUANTITATIVE TECHNIQUES

1. Master fundamental mathematical concepts like numbers, HCF, LCM, and probability. Develop problem-solving skills for series, codes, and classification.
2. Acquire skills for time-related problems, distance, and speed.
   Learn to calculate areas, volumes, and interpret data graphically.
3. Understand financial mathematics and reasoning. Gain knowledge of research methods, reading comprehension, and effective communication.
4. Learn teaching methodologies, research basics, and reading comprehension. Understand effective classroom communication.

VI SEM: DATA MINING

1. Introduce basic data mining tasks and techniques, such as classification, regression, and association rules. Explore the development and issues of data mining from a database perspective.
2. Learn classification algorithms like regression, Bayesian classification, and K Nearest Neighbors.
3. Understand clustering techniques, including hierarchical and partitional algorithms.
4. Familiarize with association rule mining and parallel/distributed algorithms. Compare various approaches for rule mining and incremental rule generation.

VI SEM: GRAPHICS

1. Explore computer graphics applications and display devices. Learn line and circle drawing techniques and area filling methods.
2. Master 2D transformations and clipping techniques. Understand window-to-viewport transformations.
3. Gain knowledge of 3D graphics, transformations, and hidden surface removal.
4. Explore graphical input devices and techniques for user interaction.

VI SEM: CYBER CRIMES, CYBER LAWS AND INTELLECTUAL PROPERTY RIGHT

1. Understand cybercrimes, their nature, legal remedies and as to how report the crimes through available platforms and procedures.
2. Recognize various privacy and security concerns on social media and e-commerce platforms.
3. Use basic tools and technologies to protect their devices.
4. Understand digital environment and IPR issues

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VI SEM: MACHINE LEARNING

1. Learn the basics of machine learning, understanding its uses, challenges, and various applications.
2. Build practical data skills, covering data collection, analysis, visualization, and preparation.
3. Become skilled in using classification and regression algorithms, including selecting, training, and evaluating models.
4. Dive into advanced clustering and specialized applications, using methods like K-Means, DBSCAN, and others.

VI SEM: MOBILE APPLICATION DEVELOPMENT

1. Understand the basic concepts of Mobile application development
2. Design and develop user interfaces for the Android platforms
3. Apply Java programming concepts to Android application development and create an application using database

VI SEM: MACHINE LEARNING LAB

1. Achieve proficiency in setting up Python, installing vital libraries, and configuring essential tools.
2. Demonstrate competence in data manipulation, dataset loading, and the creation of insightful visualizations.
3. Exhibit the ability to preprocess data, address missing values, perform categorical encoding, and implement fundamental machine learning algorithms.
4. Develop an understanding of clustering techniques, create cluster visualizations, and interpret decision tree splits.

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VI SEM: ELECTRONIC CONTENT DESIGN

- Understand the principles of visual design and user experience.
- Create and optimize images and graphics for digital media.
- Design responsive and user-friendly websites.
- Produce multimedia presentations.
- Develop content for social media platforms.
- Evaluate and critique electronic content for effectiveness.
- Apply copyright and ethical considerations in digital content creation.

VI SEM: OPERATION RESEARCH

- Formulation of optimization model and applying appropriate optimization techniques for decision making.
- Solve linear programming problems using appropriate optimization techniques.
- Finding the optimal strategy for Minimization of Cost of shipping of products from source to Destination.
- Optimizing the allocation of resources to Demand points in the best possible way.