MAR GREGORIOS COLLEGE OF ARTS & SCIENCE

BACHELOR OF COMPUTER APPLICATIONS

PROGRAMME SPECIFIC OUTCOMES

PSO1: To provide strong foundations in fundamentals of Computer Applications, inter disciplinary courses and electives for widening the domain expertise.

PSO2: To design and develop software based solutions for real world problems, serving effectively to the requirements of computer field and Society

PSO3: To understand the basic principles and concepts of Computer applications and integrate the knowledge gained in Computer application domain with practical needs of the society

PSO4: To explore the emerging technologies in diverse areas of Computer Application and inculcate skills for successful career, entrepreneurship and higher studies

PSO5: To inculcate ability to apply the concepts of Computer and practices via emerging technologies and Software development tools.

COURSE OUTCOMES

COURSE NAME	COURSE OUT COMES
SEMESTER- I	
Problem Solving using Python	CO1. To Understand the principles of Python and acquire skills in programming in python
	CO2. To develop the emerging applications of relevant field using Python
	CO3. Interpret the fundamental Python syntax and semantics and be fluent in the use of Python control flow statements.
	CO4. Able to develop simple turtle graphics programs in Python
	CO5. Illustrate the process of structuring the data using lists, dictionaries, tuples and sets. Understand the usage of packages and Dictionaries.
Problem Solving using Python using Python Lab	CO1. Understand the numeric or real life application problems and solve them
	CO2. Apply a solution clearly and accurately in a program using Python.
	CO3. Apply the best features available in Python to solve the situational problems.
	CO4. Use functions for structuring Python programs.
	CO5. Represent compound data using Python lists, tuples, dictionaries, turtles, Files and modules.
Allied I: Mathematics I	CO1. Students gain knowledge about basic concepts of Algebra

	CO2. Students gain knowledge about basic concepts of Theory of Equations
	CO3. Students gain knowledge about the basic concepts of Matrices
	CO4. Students gain knowledge about basic concepts of Trigonometry and Calculus.
	CO5. Students gain knowledge about basic concepts of Calculus
Office Automation	CO1. To perform documentation
	CO2. To perform accounting operations
	CO3. To perform presentation skills
	CO4. To impart training for students in Microsoft Office which has different components like MS Word, MS Excel and Power point
	CO5. The course is highly practice oriented rather than regular class room teaching.
SEMESTER-II	
Object Oriented Programming Concepts using C ++	CO1. To write programs using OOP concepts like Abstraction, Encapsulation, Inheritance and Polymorphism
	CO2. To inculcate knowledge on Object-oriented programming concepts using C++.
	CO3. To gain Knowledge on programming with C++.
	CO4. To write programs using operator overloading & operator overriding
	CO5. To inculcate knowledge about files.
C++ programming Lab	CO1. To understand the structure and model of the C++ programming language.
	CO2. To solve problems in C++ demonstrating Object Oriented Concepts.
	CO3. To implement the various object oriented programming concepts using C++
	CO4. To solve problems in C++Unary Operator Overloading, Binary Operator Overloading
	CO5.To solves problems in Class Template, Function Template, Exception Handling.
Allied II: Mathematics II	CO1. Students gain knowledge about basic concepts of Differential Equations
	CO2. Students gain knowledge about basic concepts of Laplace Transforms
	CO3. Students gain knowledge about basic concepts of Vector Analysis
	CO4. Students gain knowledge about basic concepts of Calculus.
	CO5. Students gain knowledge about basic concepts of Vector Differentiation
Everyday Banking	CO1.To learn about Filling up ,Clearing cheque ,Transfer cheque , Collection Cheque

	CO2.To discuss about to Wireless Application Protocol
	CO3. Understand the basic principles of creating Mobile Banking
	CO4. Knowledge of the Form filling for Fund transfer
	CO5. To learn different banking technique
SEMESTER - III	
Java programming	CO1. Knowledge of the structure and model of the Java programming language.
	CO2. Understand the basic principles of creating Java applications with GUI.
	CO3. Demonstrate use of string and String Buffers, Develop multithreaded programs in Java.
	CO4. To understand the concepts of Object Oriented Programming.
	CO5. To learn about the control structures, class with attributes and methods used in Java.
Data Structures	CO1. Implement abstract data types for linear data structures.
	CO2. Apply the different linear and non linear data structures to problem solutions.
	CO3. Critically analyze the various sorting algorithms.
	CO4. To learn linear data structures-lists, stacks, queues To apply Tree and Graph structures
	CO5. To understand sorting, searching and hashing
Data Structures using Java Lab	CO1. Write functions to implement linear and non-linear data structure operations.
	CO2. Suggest appropriate linear and non-linear data structure operations for solving a given problem.
	CO3. Analyze various sorting methods.
	CO4. To understand the different operations of search trees To implement graph traversal algorithms
	CO5. To get familiarized to sorting and searching algorithms
Computer Organization	CO1. Describe the major components of a computer system and state their function and purpose
	CO2. Describe the microstructure of a processor
	CO3. Demonstrate the ability to program a microprocessor in assembly language.
	CO4. Classify and describe the operation DMA and peripheral Interfaces.
	CO5. To bring the programming features of 8085 Microprocessor and know the features of latest microprocessors.
Allied III: Financial Accounting	CO1. To acquainted with Principles of accounting
	CO2.To equipped in the system of keeping Financial Accounting Records
	CO3. To enable the students to know the Principles of Accounting in General

	CO4. To Understand the System of Keeping Financial Accounting Records
	CO5. To learn about Partnership Accounts
SEMESTER- IV	
Computer Network	CO1. Analyse different network models
	CO2. Analyse and compare a number of data link, network and tranPSOrt layer
	CO3. Analysing key networking protocols and their hierarchical relationship in the conceptual model like TCP/IP and OSI
	CO4. To understand the concept of Computer network
	CO5. To impart knowledge about networking and internetworking devices
Open Source Technologies	CO1. To recognize the benefits and features of Open Source Technology
	CO2. To interpret, contrast and compare open source products among themselves
	CO3. To provide a basic idea of Open source technology,
	CO4. To software development process to understand the role and future of open source software
	CO5. To industry along with the impact of legal, economic and social issues for such software.
E-Commerce Technologies	CO1. Obtain a general understanding of basic business management concepts.
	CO2. Have complete knowledge about basic technical concepts relating to E-Commerce.
	CO3. Obtain thorough understanding about the security issues, threats and challenges of E-Commerce.
	CO4. To provide students with an overview and understanding of e-commerce with a specific emphasis on Internet Marketing
	CO5. To explore the major issues associated with e-commerce-security, privacy, intellectual property rights, authentication, encryption, acceptable use policies, and legal liabilities.
Open Source Technologies Lab	CO1. Students must be able to use appropriate open source tools based on the nature of the problem
	CO2. Students should be able to code and compile different open source software
	CO3. To be aware of the various open source software available for different problem needs
	CO4. To be familiar with the usage of the software like installation and configuration
	CO5. Creation of network diagrams using GraphViz.
Allied IV: Cost and Management Accounting	CO1. To learn the theory and practices of cost accounting.
	CO2. To understands the concepts of management accounting.
	CO3. This Course introduces the concepts of Cost and Management Accounting

	CO4.To learn about is Marginal Costing
	CO5. To understands the concepts of Selling and Distribution of Overheads
Environmental Studies	CO1. Multidisciplinary nature of environmental studies
	CO2. Scope and importance; concept of sustainability and sustainable development
	CO3. To understands the concepts of Biodiversity and Conservation
	CO4. To be familiar with the usage of the Ecosystem
	CO5.To learn about is Environmental pollution types, causes, effects and controls: Air, Water, soil and noise Pollution
SEMESTER- V	
Software Engineering	CO1. The students should be able to specify software requirements, and design the software using tools
	CO2. To write test cases using different testing techniques.
	CO3. To introduce the software development life cycles
	CO4. To introduce concepts related to structured and objected oriented analysis & design co
	CO5. To introduce the software development life cycles
Operating System	CO1. Understand the structure and functions of Operating System
	CO2. Compare the performance of Scheduling Algorithms
	CO3. Analyze resource management techniques
	CO4. Identify the features of I/O and File handling methods
	CO5. To gain insight on I/O and File management techniques.
Relational Database Management System	CO1. Describe basic concepts of database system
	CO2. Design a Data model and Schemas in RDBMS
	CO3. Competent in use of SQL
	CO4. Analyze functional dependencies for designing robust Database
	CO5. Understand the need of transaction processing and learn techniques for controlling the consequences of concurrent data access.
Operating System Lab	CO1. Understand the process management policies and scheduling process by CPU.
	CO2. Analyze the memory management and its allocation policies
	CO3. To evaluate the requirement for process synchronization.
	CO4. To understand the various issues in Inter Process Communication.
	CO5. Basic I/O programming.
PL/SQL Lab	CO1. Implement the DDL , DML Commands and Constraints
	CO2. Design and Implement simple project with Front End and Back End
	CO3. Create, Update and query on the database.

	CO4. Understand PL/SQL statements: Exception Handling, Cursors, and Triggers
	CO5. Understand queries in SQL to retrieve information from data base
Multimedia and its Applications	CO1. To understand the basic concepts of Multimedia Systems
	CO2. To learn representations, perceptions and applications of Multimedia
	CO3. To understand the technologies behind multimedia applications
	CO4. To learn about Multimedia graphics techniques
	CO5. Create and design the Multimedia Project
SEMESTER - VI	
Web Design and Development	CO1. Ability to Develop and publish Web pages using Hypertext Markup Language (HTML).
	CO2.Ability to optimize page styles and layout with Cascading Style Sheets (CSS).
	CO3. Ability to Understand, analyze and apply the role of languages to create a capstone
	CO4. Website using client-side web programming languages like HTML, DHTML, CSS, XML, JavaScript, and AJAX
	CO5. To learn the basic web concepts and to create rich internet applications that use most recent client-side programming technologies.
Data Mining	CO1. To have knowledge in Data mining concepts
	CO2. To apply Data mining concepts in different fields
	CO3. To learn about data mining Concepts
	CO4.To study the different data mining techniques
	CO5. To learn about Classification
Mobile Application Development	CO1. To explain the basics of mobile application development
	CO2. Develop Android application with User interface, networking and animation
	CO3. Use simulator tools to test and publish the application
	CO4. To make the student understand the basic concepts of mobile application development, be aware of Characteristics of mobile applications, User-interface design, basics of graphics and multimedia
	CO5. To gain knowledge about testing and publishing of Android application
Mobile Application Development Lab	CO1. To give overall view of Mobile application development
	CO2.Develop and Publish Android applications using Graphical user interface
	CO3. Develop and Publish Android application which can use Location and network services
	CO4.. Use Emulator tools to design and develop applications
	CO5. Develop Android application with User interface,

	networking and animation
IOT and its Applications	CO1. Use of Devices, Gateways and Data Management in IOT.
	CO2. Design IOT applications in different domain and be able to analyze their performance
	CO3.Implement basic IOT applications on embedded platform
	CO4. To Determine the Market perspective of IOT.
	CO5. To Understand the vision of IOT from a global context
Mini Project	CO1.To understand the real time software development environment
	CO2. Requirement for developing a computer-based solution already exists and the different stages of system development life cycle is to be implemented successfully
	CO3. Projects based on system level implementation.
	CO4. Each one must independently take different modules of the work and must submit the report
	CO5.These are projects which involve research and development