

MAR GREGORIOS COLLEGE OF ARTS & SCIENCE

B.SC COMPUTER SCIENCE

PROGRAMME SPECIFIC OUTCOMES

PSO1: Demonstrate mastery of Computer Science in the following core knowledge areas

- Data Structures and Programming Languages
- Databases, Software Engineering and Development
- Computer Hardware and Architecture

PSO2: Apply problem-solving skills and the knowledge of computer science to solve real world problems.

PSO3: Students inculcate the ability to solve problems using Python language and gain more knowledge in web programming languages.

PSO4: Learn about basic Assembly level language and gain knowledge on Data Science.

PSO5: Develop technical project reports and present them orally among the users.

COURSE OUTCOMES

COURSE NAME	COURSE OUTCOMES
SEMESTER - I	
Problem solving using Python	CO1. To Understand the principles of Python and acquire skills in programming in python
	CO2. Learn the basics of Control structures, Loops and lists.
	CO3. Interpret the fundamental Python syntax and semantics and to be fluent in the use of Python control flow statements.
	CO4. Able to develop simple turtle graphics programs in Python.
	CO5: Understand the usage of packages and Dictionaries.
Practical. Problem Solving using Python	CO1. To implement the python programming features in practical applications.
	CO2. Understand the numeric or real life application problems and solve them.
	CO3. Applying solutions clearly and accurately in a program using Python.
	CO4. Apply the best features available in Python to solve the situational problems.
	CO5. Represent compound data using Python lists, tuples, dictionaries, turtles, Files and modules.
Allied Mathematics-I	CO1: Understand the basic concepts of Algebra and Numerical Methods

	CO2: Familiarize with matrices
	CO3: Describe the theory of equations
	CO4: Learn the basics of Trigonometry
	CO5: Understand about differential calculus
SEMESTER - II	
Computer Organization	CO1 To understand the basic organization of computers and the working of each component and CPU.
	CO2. To bring the programming features of 8085 Microprocessor and know the features of latest microprocessors.
	CO3. To understand the principles of Interfacing I/O devices and Direct Memory accesses.
	CO4. Describe the major components of a computer system and state their function and purpose.
	CO5. Demonstrate the ability to program a microprocessor in assembly language.
Computer Organization Lab	CO1. To understand the programming features and operations of assembly language programs using 8085 microprocessor kit or Simulator.
	CO2. Implement the arithmetic operations in assembly language programming.
	CO3. Understand the programming logic of 8085 in various aspects.
	CO4. Understand the sorting and searching programs.
	CO5. To have deeper understanding on the code conversion program.
Allied Mathematics –II	CO1: Gain knowledge about integral calculus
	CO2: Learn differential equations
	CO3: Understand Laplace transforms
	CO4: Learn the basics of vector differentiation
	CO5: Familiarize with vector integration
SEMESTER - III	
Java and Data Structures	CO1. to learn the basic concepts of Java programming.
	CO2. To have an overview of interfaces, packages, multithreading and exceptions.
	CO3. To familiarize students with basic data structures and their use in algorithms.
	CO4. to develop Java Standalone applications and Applets.
	CO5. Choose the appropriate data structure for modeling a given problem.
Data Structures Using Java Lab	CO1. To understand the different operations of search trees.
	CO2. Learn the graph traversal algorithms and BST.
	CO3. Learn the linear and non-linear data structures
	CO4: Write functions to implement linear and non-linear data structure operations.
	CO5. Suggest appropriate linear and non-linear data structure operations for solving a given problem.
	CO1: To understand Sample survey, Types of variable and

Allied Statistics	presentation of data by tables.
	CO2: Know about Diagrammatic presentation: Line diagram, Bar diagrams: Simple, multiple, subdivided and Percentage-Pie chart, comparative pie chart
	CO3: Analyze statistical data using measures of central tendency, dispersion and location
	CO4: To understand Measures of dispersion: Range-Quartile deviation-mean deviation.
	CO5: To understand correlation between continuous variables and association between categorical variables.
SEMESTER- IV	
Web Technology	CO1. Understand the general concepts of PHP scripting language for the development of Internet websites.
	CO2. Understand the basic functions of MySQL database program and XML concepts
	CO3. Learn the relationship between the client side and the server side scripts
	CO4. To develop web sites ranging from simple online information forms to complex e-commerce sites with MySQL database, building, connectivity, and maintenance.
	CO5. To use PHP and MySQL to develop dynamic web sites for user on the Internet.
Web Technology Lab	CO1: Develop programs in PHP.
	CO2: Obtain knowledge and develop application programs using PHP.
	CO3: Students can Create dynamic Web applications such as content management, user registration, and ecommerce using PHP and to understand the ability to post and publish a PHP website.
	CO4: Students can develop a MySQL database and establish connectivity using MySQL.
	CO5: Students can develop simple applications using PHP and MySQL.
Allied Statistics II	CO1: To understand the basic concepts of Probability: Random Experiments, Sample space, Trial, Events.
	CO2: Identify the characteristics of different discrete and continuous distributions.
	CO3: Identify the type of statistical situation to which different distributions can be applied.
	CO4: To comprehend the Sampling distributions.
	CO5: To understand how to apply statistical tests to get information from data.
SEMESTER- V	
Computer Network	CO1: Students can understand the concept of Computer network.
	CO2: Students can understand Wireless Transmission, Structure, Local Loop, Trunks and Multiplexing and Switching.

	CO3: Describe, analyze and compare a number of data link, network and transport layer.
	CO4: Analyzing key networking protocols and their hierarchical relationship in the conceptual model like TCP/IP and OSI and routing algorithm.
	CO5: To understand transport layer.
Operating System	CO1: Schedule CPU time using scheduling algorithm for processors
	CO2: To understand the fundamental concepts Process synchronization and Deadlock.
	CO3: Allocate Main Memory based on various memory management techniques.
	CO4: Apply page replacement policies for dynamic memory management.
	CO5: To understand domain access matrix.
Relational Database Management System.	CO1: Gain a good understanding of the architecture and functioning of Database Management Systems.
	CO2: Understand the various key, advantages of DBMS.
	CO3: To understand Normalization techniques to normalize a database.
	CO4: Understand the use of Structured Query Language (SQL) and its syntax.
	CO5: To get knowledge about PL/SQL.
Operating System Lab	CO1: Understand Basic I/O programming.
	CO2: Understand the process management policies and scheduling process by CPU.
	CO3: To get knowledge about First Come First Served Algorithm and RR, Priority scheduling algorithms.
	CO4: Analyze the memory management and its allocation policies.
	CO5: To evaluate the requirement for process synchronization and Inter Process Communication.
PL / SQL Lab	CO1: Learn the various DDL and DML commands
	CO2: Design and Implement simple project with Front End and Back End.
	CO3: Understand PL/SQL statements: Exception Handling, Cursors, and Triggers.
	CO4: Design and develop application for Library management.
	CO5: Design and develop application for student mark sheet processing.
SEMESTER- VI	
Software Engineering	CO1: To understand software development life cycle, RAD, Spiral model.
	CO2: To introduce concepts related to structured and objected oriented analysis & design
	CO3: to specify software requirements, design the software using tools.

	CO4: To understand OO concepts and UML model.
	CO5: Understand basic testing like white box and block box.
Introduction to cloud computing	CO1: To understand the cloud computing foundation and working of cloud computing.
	CO2: To understand the evolving computer model caned cloud computing.
	CO3: to understand data storage and cloud storage.
	CO4: To introduce the various levels of services that can be achieved by cloud.
	CO5: To understand the concepts in Cloud Computing and its Security
CASE tools and testing tools LAB	CO1: to analyze and design the problem at hand.
	CO2: to use UML tools for the designing the software and test the correctness and soundness of their software through testing tools.
	CO3: To get familiarize with the usage of UML tool kit.
	CO4: To understand the requirements of the software and to map them appropriately to subsequent phases of the software development.
	CO5: To develop the ability to verify and validate their designs.
Mini Project	CO1. Identify drawbacks in existing system and design a new system
	CO2.Gather and analyze system requirements
	CO3. Design the proposed system
	CO4. Prepare proper documentation by following standard guidelines
	CO5.Learn technical report and oral presentation skills.