MAR GREGORIOS COLLEGE OF ARTS & SCIENCE

M.SC. COMPUTER SCIENCE

PROGRAMME SPECIFIC OUTCOMES

PSO1: Communicate computer science concepts, designs, and solutions effectively and professionally

PSO2: Apply knowledge of computing to produce effective designs and solutions for specific problems

PSO3: Use software development tools, software systems, and modern computing platforms

PSO4: Students can develop Algorithm, programming in advance level.

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

COURSE OUTCOMES

COURSE NAME	COURSE OUTCOMES
SEMESTER- I	
Design and Analysis of Algorithms	After completing this course, students will be able to: CO1. Understand the basic concepts of an algorithm, space & time Complexity, divide and conquer techniques
	CO2.Know various sorting and searching techniques and greedy algorithm
	CO3. Learn the search techniques of graph and dynamic programming
	CO4. Understand the concepts of backtracking, branch and bound techniques
	CO5: Learn the basic concepts of NP-Hard and NP-Complete problems.
Advanced Java Programming	After completing this course, students will be able to: CO1. Learn the servlet lifecycle, applet to servlet communication
	CO2.Understand the software component assembly model and java bean API
	CO3. Know the EJB architecture, its design and implementation, PERL control structures and functions.
	CO4.Understand RMI concepts and developing applications with RMI
	CO5. Learn the concepts of JSP and java messaging services
System Software	After completing this course, students will be able to: CO1. Learn the basic concepts of language processors, scanners and parsers
	CO2.Know the elements of assembly language programming

	CO3. Understand the macros and macro processors
	CO4.Know about compilers and interpreters
	CO5. Understand linking and relocation concepts and software tools for program development
Theoretical Foundations of Computer Science	After completing this course, students will be able to: CO1. Understand the basics of propositions and compound propositions
	CO2.Apply the knowledge on graphs and trees to real world applications
	CO3. Familiar with finite automata and regular expressions
	CO4. Demonstrate the working of context free grammars
	CO5.Know how to simplify context free grammars
Algorithms Lab	After completing this course, students will be able to: CO1: Develop programs using divide and conquer and greedy method
	CO2: Develop programs using dynamic programming and backtracking
Advanced Java Programming Lab	After completing this course, students will be able to: CO1: Create java programs for HTML to servlet applications
	CO2: Create JSP program using JavaBeans
	CO3: Create Web services with RMI.
	CO4: Create java program using EJB
SEMESTER- II	
Computer Networks	After completing this course, students will be able to: CO1. Describe the theoretical basis for data communication and guided transmission media
	CO2. Know about wireless transmission and design issues in data link layer
	CO3.Learn the elementary data link protocols
	CO4.Understand the network layer and its design issues, routing algorithm
	CO5. Familiar with tranPSOrt layer and its services
Digital Image Processing	After completing this course, students will be able to: CO1. Learn the basics of color image processing
	CO2.
	CO3. Understand the image enhancement in frequency domain
	CO4.Describe the image restoration and image segmentation
	CO5.Learn how to compress image
Computer Graphics	After completing this course, students will be able to: CO1.Learn the video display devices, interactive input devices and graphics software
	CO2.Understand the two-dimensional transformation techniques
	CO3.Describe the clipping algorithms
	CO4. Familiar with three dimensional clipping algorithms
	CO5. Understand the three-dimensional object representations

Object Oriented Analysis and Design	After completing this course, students will be able to: CO1. Learn the basics of object and unified approach
	CO2.Understand the class and object rePSOnsibilities
	CO3.Familiar with class design, object storage and object interoperability
	CO4.Describe the user interface design
	CO5.Understand the various testing strategies for Quality Assurance
RDBMS Lab	After completing this course, students will be able to: CO1: Create program for library information processing, students mark sheet processing
	CO2: Create program for telephone directory maintenance, gas booking and delivery system.
	CO3: Create program for electricity bill processing, pay roll processing.
	CO4: Create program for purchase order processing, bank transactions
	CO5: Create program for inventory system
Image Processing using Java Lab	After completing this course, students will be able to: CO1: Develop program for basic image manipulation
	CO2: Develop program for basic intensity transformation
	CO3: Develop program for histogram processing
	CO4: Develop program for image coding using transformations with SPIHT algorithm
	CO5: Develop program for Color image Enhancement with spatial sharpening
SEMESTER- III	
Principles of Compiler Design	After completing this course, students will be able to: CO1. Familiar with finite automata and lexical analysis
	CO2.Understand the context free grammars
	CO3. Know about syntax - directed translation scheme and symbol table
	CO4.Acquire knowledge on code optimization
	CO5.Learn the code generation and error detection and recovery techniques.
Information Security	After completing this course, students will be able to: CO1. Learn how to generate secure programs
	CO2.Understand the operating system security
	CO3. Describe the Security requirements of database
	CO4: Learn to design a secure network
	CO5. Familiar with ethical issues in computer security
Artificial Intelligence	After completing this course, students will be able to: CO1. Learn problem solving by searching
	CO2.Understand the concepts of logical agents and first-order logic
	CO3. Know about probabilistic reasoning
	CO4. Describe about statistical learning methods
	CO5.Understand probabilistic language processing

Cryptography	After completing this course, students will be able to: CO1. Familiar with conventional encryption model
	CO2. Describe the concepts of number theory
	CO3. Understand the public key cryptography
	CO4.Gain knowledge about message authorization and hash functions
	CO5.Learn the digital signature and authentication protocols
Multimedia Systems	After completing this course, students will be able to: CO1. Understand the concepts of multimedia
	CO2.Know about multimedia hardware and software
	CO3.Learn the tools like dream weaver, flash, photoshop
	CO4.Gain knowledge about multimedia applications
	CO5. Understand the digital communication
Mini Project	After completing this course, students will be able to: CO1: Identify, define and justify scope of the proposed problem
	CO2: Gather and analyze system requirements
	CO3: Apply coding, debugging and testing tools to enhance the quality of the proposed system
	CO4: Prepare proper documentation by following standard guidelines
Internship	After completing this course, students will be able to: CO1: Gain the confidence to work in major projects
	CO2: Get the skill exposure in the corporate environment
SEMESTER- IV	
Project & Viva-Voce	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.