SUBHARAM GOVERNMENT DEGREE COLLEGE, PUNGANUR-517247

CHITTOOR DIST.

DEPARTMENT OF COMPUTER SCIENCE

COURSE OBJECTIVES & COURSE OUTCOMES

SEMESTER	COURSE CODE & TITLE OF THE PAPER	OBJECTIVES	OUTCOMES
I	PROBLEM SOLVING IN C C1	1. To review the key ideas of computer science, programming, andproblem-solving using the C++ language. 2. To understand abstraction and the role it plays in the problem-solvingprocess. 3.To develop understanding of Big Onotation and other important techniques of algorithm analysis. 4.To develop comfort with standarddata structures including queues, stacks, and trees. 5.To become conversant with sorting algorithms, including the advantages and disadvantages of each	After completion of this course, the student will be able to; 1. Understand the evolution and functionality of a Digital Computer . 2. Apply logical skills to analyse agiven problem 3. Develop an algorithm forsolving a given problem. 4. Understand ‘ C’ language constructs like Iterative statements, Array processing, Pointers, etc. 5. Apply ‘ C’ language constructs to the algorithms to write a ‘ C ’ language program

II	DATA STRUCTURES USING C C2	To enable the students to – 1. Design and Implement List datastructure using i) array ii) singly linked list. 2. Design and Implement basicoperations on doubly linked list 3. Design and Implement stack using i) array ii) singly linked list 4. Design and Implement Queueusing i) array ii) singly linked list 5. Design and Implement basicoperations on Circular Queue 6. Design and Implement basic operations(insertion, deletion, search, findmin and findmax) on Binary Search trees. 7. Implementation of Breadth FirstSearch Techniques	After successful completion of this course, the student will beable to; 1. Understand available Data Structures for data storage andprocessing. 2. Comprehend Data Structure and their real-time applications - Stack, Queue, Linked List, Trees and Graph 3. Choose a suitable Data Structures for an application 4. Develop ability to implement different Sorting and Search methods 5. Have knowledge on Data Structures basic operations like insert , delete, search, update and traversal 6. Design and develop programsusing various data structures 7. Implement the applications ofalgorithms for sorting, pattern matching etc.
III	DATABASE MANAGEMENT SYSTEM-C3	Students will learn – 1. Eliminate redundant data. 2. Make access to the data easy forthe user.	1. Acquire the basic knowledge

		3. Provide for mass storage ofrelevant data. 4. Protect the data from physicalharm and un-authorised systems. 5. Allow for growth in the data basesystem. 6. Make the latest modifications to the data base available immediately 7. Allow for multiple users to beactive at one time. 8. Provide prompt response to userrequests for data.	On completing the subject, studentswill be able to: 1. Gain knowledge of Database andDBMS. 2. Understand the fundamental concepts of DBMS with special emphasis on relational data model. 3. Demonstrate an understanding of normalization theory and apply suchknowledge to the normalization of a database 4. Model database using ER Diagrams and design databaseschemas based on the
IV	OBJECT ORIENTATED PROGRAMMING THROUGH JAVA C4	Students will learn – 1 To understand the concepts andfeatures of object oriented programming	At the end of this course studentwill: 1. Understand the benefits of a well -structured program 2. Understand different computerprogramming paradigms

		2. To examine key aspects of java Standard API library such as util, io, applets, swings, GUI based controls . 3. To learn java's exception handling mechanism, multithreading , packages and interfaces. 4. To develop skills in internet programming using applets and swings	3. Understand underlying principles of Object-Oriented Programming in Java 4. Develop problem-solving and programming skills using OOP concepts 5. Develop the ability to solve real-world problems through software development in high-level programming language like Java.
V	OPERATING SYSTEMS C5	Students will learn – 1. To understand the services provided by and the design of an operating system. 2. To understand the structure and organization of the file system. 3. To understand what a process is and how processes are synchronized and scheduled.	Upon successful completion of the course, a student will be able to: 1. Know Computer system resources and the role of operating system in resource management with algorithms 2. Understand Operating System Architectural design and its services .

		4. To understand different approaches to memory management. 5. Students should be able to use system calls for managing processes, memory and thefile system. 6.Students should understandthe data structures and algorithms used to implementan OS.	3. Gain knowledge of various typesof operating systems including Unix and Android. 4. Understand various process management concepts including scheduling, synchronization, and deadlocks. 5. Have a basic knowledge aboutmultithreading. 6. Comprehend differentapproaches for memory management.
VI	SOFTWARE ENGINEERING C6	To enable the students to – 1. Demonstrates agility in solvingsoftware and system challenges with a comprehensive set of skillsappropriate to the needs of the dynamic global computing-based society. 2. Capable of diverse team and organizational leadership in computing project settings. 3. Demonstrates ethical principlesin the application of computing- based solutions to societal and organizational problems.	After successful completion of thiscourse, the student will be able to; 1.To inculcate the Analytical andthinking ability. 2: To develop structured sets of simple user-defined classes using Object-Oriented principles to achieve overall programming goals.3: To understanding the significance of Object Orientation Technique in Software engineering.

		4. Continually acquires skills and knowledge to support a professional pathway, including (but not limited to) communication , analytic, and technical skills.	5: To locate, read and summarize relevant literature, from both traditional and electronic media, toextend understanding of the topic.
VII	WEB INTERFACE DESIGNING TECHNOLOGIES C7	To enable the students to – 1.Understand how to plan and conduct user research related to webusability. 2.Learn the language of the web: HTML and CSS. 3.Learn techniques of responsiveweb design, including media queries. 4.Develop skills in digital imaging (Adobe Photoshop.) 5Learn techniques of responsiveweb design, including media queries. 6.Develop skills in digital imaging (Adobe Photoshop.)	Students after successful completion of the course will beable to: 1. Understand and appreciate theweb architecture and services. 2. Gain knowledge about variouscomponent sofa website. 3. Demonstrate skills regarding creation of a static website andan interface to dynamic website. 4. Learn how to install word pressand gain the knowledge of installing various plug in to use in their websites.

VIII	Web Applications Development using PHP & MYSQL C 8	To enable the students to – 1.Start learning web development today to become aweb developer tomorrow. 2. Learn to create your own apps using PHP & MySQL from scratch with practical examples. 3.Become a PHP/MySQL web developer to create small applications yourself.	Students after successful completion of the course will beable to: 1.Use MySQL to create, update and delete tables from a database.2.Create related tables and definekeys. 3.Create both inner and outer joinsof two or more tables. 4.Use PHP to create a data drivenwebsite. 5.Use PHP to read a file and addrecords to the database.