

MANNAR THIRUMALAI NAICKER COLLEGE (Autonomous)

(An Autonomous Institution Affiliated to Madurai Kamaraj University)
(Accredited with "A" Grade by NAAC)
Pasumalai, Madurai -625004

V & VI SEMESTER - COURSE OUTCOMES SCIENCE

BCA

18UCAC51

OPERATING SYSTEMS

Course Outcomes

On successful completion of the course, the students will be able to

- CO1 Define Operating System, its components and Goals, basic concepts, structure and functions of operating systems
- CO2 Explain the mutual exclusion primitives, semaphores and concurrent programming.
- CO3 Implement processor scheduling, deadlock prevention and avoidance for a given scenario
- **CO4** Compare contiguous vs Noncontiguous memory allocation and Fixed and Variable Partition Multiprogramming.
- **CO5** Analyze the necessity of Disk Scheduling and various file systems.

18UCAC52 RELATIONAL DATABASE MANAGEMENT SYSTEM

Course Outcomes

On successful completion of the course, the students will be able to

- **CO1** Enumerate the underlying concepts of the management of database systems.
- **CO2** Explain the structure and model of the relational database System
- CO3 Design a database based on a data model considering thenormalization to a specified level
- **CO4** Write a SQL queries for user specification.
- CO5 Design multiple tables using group functions, sub queries and Implement cursor and trigger concept for a given scenario

18UCACP5 VB .NET PROGRAMMING AND RDBMS – LAB

Course Outcomes

- **CO1** Compute Console Application using VB.NET
- CO2 Use Standard controls for creating windows based applications
- CO3 Use the database from a front end application

- **CO4** Write SQL queries to user specifications
- CO5 Develop cursors, triggers, procedures, user defined functions and designaccurate and PLSQL programs in Oracle

18UCAS51 COMPUTER NETWORKS

Course Outcomes

On successful completion of the course, the students will be able to

- CO1 Explain about building blocks of Computer Networks, components and transmission media.
- CO2 Demonstrate the functionalities and protocols in the layers of ISO/OSI network model
- CO3 Make use of data link layer protocols in Error detection and correction
- **CO4** Examine the Forwarding and multicast routing protocols
- CO5 Justify how digital signatures are used to provide authentication

18UCAE51

DATA MINING AND WAREHOUSING

Course Outcomes

On successful completion of the course, the students will be able to

- CO1 Understand Data Warehouse fundamentals, Data Mining Principles
- CO2 Design data warehouse with dimensional modelling and apply OLAP operations
- CO3 Identify appropriate data mining algorithms to solve real world problems
- CO4 Compare and evaluate different data mining techniques like classification, prediction, Clustering and Association Rule Mining.
- CO5 Describe complex data types with respect to spatial and web mining

18UCAE52 WEB TECHNOLOGY

Course Outcomes

On successful completion of the course, the students will be able to

- CO1 Describe the development of the World Wide Web and understand the basic concepts of internet, internet standards and protocols.
- CO2 Develop a webpage using various html tags.
- CO3 Analyze, identify and define the technology required to build and implement a website
- **CO4** Justify various development tool using to design a webpage and web application
- CO5 Design a dynamic webpage.

18UCAE53 COMPUTER GRAPHICS

Course Outcomes

On successful completion of the course, the students will be able to

- CO1 List the basic concepts used in computer graphics.
- CO2 Implement various algorithms to scan, convert the basic geometrical primitives, transformations, Line filling, clipping.
- CO3 Describe the importance of viewing and projections.
- CO4 Define the fundamentals of animation, virtual reality and its related technologies.
- CO5 Design an application with the principles of virtual reality

18UCAE54 INTERNET OF THINGS

Course Outcomes

On successful completion of the course, the students will be able to

- CO1 Describe and explain about IoT, Physical and Logical design of IoT, IoT levels, domain SpecificIoTs.
- CO2 Determine physical and logical design of IoT.
- CO3 Compare Physical and Logical IoT, different levels and domain specific IoTs.
- CO4 Conclude the importance of IoT, Physical and Logical IoT, IoTlevel,s domain specificIoTs.
- CO5 Design and develop Physical and Logical IoT, IoT deployment templates

18UCAE55 DIGITAL IMAGE PROCESSING

Course Outcomes

On successful completion of the course, the students will be able to

- **CO1** Knowthe basic concepts of Digital image fundamentals, Intensity Transformation and spatial filtering, image restoration, image compression, image segmentation.
- CO2 Classify spatial filtering technique.
- **CO3** Analyze Image restoration and Reconstruction technique.
- **CO4** Implement image compression technique.
- **CO5** Propose a image segmentation work

18UCAE56 INFORMATION SECURITY

Course Outcomes

- **CO1** Discuss the basics of information security.
- CO2 Illustratethe legal, ethical and professional issues in information security.
- CO3 Understand the concepts of cyber law
- **CO4** To understand the concepts of authentication and authorization.

CO5 To demonstrate the aspects of protocolmanagement.

18UCAC61

PYTHON PROGRAMMING

Course Outcomes

On successful completion of the course, the students will be able to

- **CO1** Recall the basics of OOP and translate the variables in Python.
- CO2 Manipulate the variables and statements using Loops, Function, Strings.
- **CO3** Simplify the code by utilize the control statement and Modules.
- **CO4** Choose the method to reduce source code metrics with exception.
- CO5 Create a program using OOP and additional features of Python.

18UCAC62

SOFTWARE PROJECT MANAGEMENT

Course Outcomes

On successful completion of the course, the students will be able to

- CO1 Define the methods used to evaluate and select projects for investment of funds.
- CO2 Elaborate knowledge on the principles and techniques of software project management.
- CO3 Prepare organization behavior and general management techniques used for project
- **CO4** Organize test case design and types of testing.
- **CO5** Evaluate the levels of testing.

18UCACP6

PYTHON PROGRAMMING LAB

Course Outcomes

On successful completion of the course, the students will be able to

- **CO1** Recall and understand the variable, datatypes and tokens.
- CO2 Identify the error and apply the exception techniques.
- CO3 Analyze the decision making statements like switch, for, while in the program
- CO4 Justify the concept of various techniques to maximize the execution speed.
- CO5 Create a file to manipulate the input and output values.

18UCAPR1

PROJECT WORK AND VIVA - VOCE

Course Outcomes

- **CO1** Demonstrate a sound technical knowledge of their selected project topic.
- CO2 Undertake problem identification, formulation and solution.
- CO3 Design solutions to complex problems utilising a systems approach.
- **CO4** Conduct a Real Time Project
- CO5 Demonstrate an ability to present and defend their project work to a panel of experts.

18UCASP6

WEB TECHNOLOGY LAB

Course Outcomes

On successful completion of the course, the students will be able to

- CO1 Design and implement dynamic websites with good aesthetic sense of designing and latest technical know-how's.
- **CO2** To have a Good grounding of Web Application Terminologies, Internet Tools, E Commerce and other web services.
- CO3 To familiar with Web page design using HTML / DHTML and style sheets.
- CO4 To develop a Web site using text, images, links, lists, and tables for navigation and layout.
- **CO5** To create applications using controls.

18UCAE61

BIG DATA AND ANALYTICS

Course Outcomes

On successful completion of the course, the students will be able to

- CO1 Explain the basic concepts of Big data, Bigdata analytics, NoSQL, Hadoop and MongoDB.
- CO2 Collect, manage, store, query and analyze various form of big data
- CO3 Differentiate SQL with NoSQL, NewSQL, RDBMS and Hadoop.
- **CO4** Evaluate bigdata concept in extract knowledge using Hadoop and MongoDB.
- **CO5** Combine the benefits of bigdata techniques in businesses and organizations.

18UCAE62

CLOUD INFRASTRUCTURE AND SERVICES

Course Outcomes

- CO1 Describe the Key Technologies, Architecture, Services and Applications of Cloud Computing.
- **CO2** Apply suitable Technologies, Algorithms, and Applications in the Cloud Computing Driven Systems.
- CO3 Classify the various Cloud Services Platform with Cloud Computing Technology and Services.
- CO4 Explain the Importance of Cloud Based Technologies and evaluate various cloud

Development tools.

CO5 Build the Skill about the Cloud Infrastructure and Supports for employability.

18UCAE63

MACHINE LEARNING ALGORITHM

Course Outcomes

On successful completion of the course, the students will be able to

- CO1 Select and implement machine learning techniques and computing environment that are suitable for the applications
- CO2 Solve problems associated with batch learning and online learning.
- CO3 Understand and apply scaling up machine learning techniques and associated computing techniques and technologies
- **CO4** Recognize and implement various ways of selecting suitable model parameters for different machine learning techniques.
- CO5 Design and implement machine learning solutions to classification, regression, and clustering problems; and be able to evaluate and interpret the results of the algorithms.

18UCAE64 CRYPTOGRAPHY

Course Outcomes

On successful completion of the course, the students will be able to

- CO1 Understand the concept of Symmetric key and Asymmetric key cryptography
- CO2 Apply the symmetric-key ciphers and asymmetric key ciphers to encrypt data
- CO3 Analyze the different crypto systems in asymmetric key cryptography for data authentications
- **CO4** Evaluate the various digital signature schemes to check the user authentication
- CO5 Compose secure data exchange between sender and receiver by using message integrity and message authentication

18UCAE65 SOFTWARE TESTING

Course Outcomes

- CO1 List a range of different software testing techniques and demonstrate the integration testingwhich aims to uncover interaction and compatibility problems as early as possible
- CO2 Apply specific unit testing method to the projects.
- CO3 Distinguish characteristics of structural testing methods.
- CO4 Choosing a testing tool which should be addressed when selecting an application testing solution.
- CO5 Propose methods and tools of testing and maintenance of software

18UCAE66

MOBILE COMPUTING

Course Outcomes

- **CO1** Describe the Architecture, Application and Services of Mobile Computing.
- **CO2** Build an Application Based on the User Requirements.
- **CO3** Select Appropriate Framework for Developing Applications based on the Problem Requirements.
- **CO4** Explains the importance of Emerging Technologies, GPRS, CDMA and 3G, Security Issues.
- CO5 Design and Develop Mobile Applications for Societal and Environmental IT Problems.