



B. Sc. Computer Science

ALLIED COMPUTER SCIENCE FOR UG PROGRAMMES

(Candidates admitted in Affiliated Colleges from the academic year 2022 -2023 onwards)

Allied Computer Science -Paper I: BASICS OF COMPUTERS

SEMESTER: I/III PART-III	22UCSCA01: BASICS OF COMPUTERS	CREDIT: 4 HOURS:4/W
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Objective : To Provide the Basic Concepts in Computer Science

Unit I

HOURS: 12

Introduction to Computer – Classification of Digital Computer System – Computer Architecture – Memory Units – Auxiliary Storage Devices – Input and Output Devices.

Unit II

HOURS: 12

Introduction to Computer Software – Operating System – Programming Languages – General Software Features and trends.

Unit III

HOURS: 12

Database Management Systems – Data Processing – Introduction to Database Management System – database design.

Unit IV

HOURS: 12

Introduction to Telecommunication – Networking – Communication System – Distributed System – Internet – Intranet.

Unit V

HOURS: 12

Multimedia tools – Virtual Reality – E-Commerce – Data warehousing – Data Mining – Applications; Geographical Information System – Computer in Business, Industry, Home, Education and Training.

Course Outcomes

1. Understand the basic concepts, classification and I/O devices of Computers.
2. Have a basic understanding of software and its operations.
3. Understand the databases in Computer Science.
4. Knowledge of telecommunication and their operations and applications.
5. Enhancing the concepts of E-Commerce and various applications of computers.

Text Book :

1. Fundamentals of Information Technology, Alexis Leon And Mathews Leon, Vikas Publishing House Pvt. Ltd, 2009

Supplementary Readings

1. Henry C.Lucas, Jr., Information Technology for Management – McGraw Hill (Part – III).
2. Williams, Sawyer, Hutchinson, Using Information Technology – McGraw Hill.

PROGRAMME OUTCOMES AND COURSE OUTCOMES MAPPING TABLE

CO/PO	PO1	PO2	PO3	PO4	PO5
CO1	3	3	2	2	3
CO2	2	2	3	2	2
CO3	3	3	3	2	2
CO4	3	2	3	3	2
CO5	2	2	3	2	3

1-LOW 2- MODERATE 3-HIGH

SEMESTER: II/IV PART-III	COURSE CODE: 22UCSCA02 COURSE TITLE: WEB TECHNOLOGY	CREDIT: 4 HOURS:4/W
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Learning Objectives

1. To understand the fundamental concepts and role of Web Technology.
2. To learn the Process of CSS.
3. To understand the web pages.
4. To gain insight on script objects.
5. To Know Java Script libraries.

Unit I : Structuring Documents for the Web

Hours: 12

Introducing HTML and XHTML, Basic Text Formatting, Presentational Elements, Phrase Elements, Lists, Editing Text, Core Elements and Attributes, Attribute Groups. Links and Navigation: Basic Links, Creating Links with the Element, Advanced E- mail Links. Images, Audio, and Video: Adding Images Using the Element, Using Images as Links Image Maps, Choosing the Right Image Format, Adding Flash, Video and Audio to your web pages

Unit II: Tables

Hours:12

Introducing Tables, Grouping Section of a Table, Nested Tables, Accessing Tables. Forms: Introducing Forms, Form Controls, Sending Form Data to the Server. Frames: Introducing Frameset, <frame> Element, Creating Links Between Frames, Setting a Default Target Frame Using Element, Nested Framesets, Inline or Floating Frames with <iframes>

Unit III: Cascading Style Sheets

Hours:12

Introducing CSS, Where you can Add CSS Rules. CSS Properties: Controlling Text, Text Formatting, Text Pseudo Classes, Selectors, Lengths, Introducing the Box Model. More Cascading Style Sheets: Links, Lists, Tables, Outlines, The :focus and :activate Pseudo classes Generated Content, Miscellaneous Properties, Additional Rules, Positioning and Layout wit, Page Layout CSS , Design Issues

Unit IV: Java Script

Hours:12

How to Add Script to Your Pages, Variables and Data Types – Statements and Operators, Control Structures, Conditional Statements, Loop Statements – Functions - Message box, Dialog Boxes, Alert Boxes, Confirm Boxes, Prompt Boxes.

Unit V: Working with Java Script

Hours: 12

Practical Tips for Writing Scripts, JavaScript Objects: Window Object - Document object - Browser Object - Form Object - Navigator object Screen object - Events, Event Handlers, Forms – Validations, Form Enhancements, JavaScript Libraries.

Course Outcomes

1. Understand the structure of the documents in Web.
2. Remember and understand the table handling tags.
3. Understand and organize CSS.
4. Implement scripts in web page.
5. Evaluate script objects.

Text Books :

1. Jon Duckett, Beginning HTML, XHTML, CSS and Java script , Wiley Publishing.

Supplementary Readings :

1. Chris Bates, Web Programming, 3d Edition , Wiley Publishing.
2. M. Srinivasan, Web Technology: Theory and Practice, Pearson Publication
3. [G. Ramanan; J. Albunskuba; S. Moovendhan](#), Web Technology,, Charulatha Publications Private Limited

PROGRAMME OUTCOMES AND COURSE OUTCOMES MAPPING TABLE

CO/PO	PO1	PO2	PO3	PO4	PO5
CO1	2	3	2	2	3
CO2	2	2	3	3	3
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1-LOW 2- MODERATE 3-HIGH

Allied Computer Science Lab-I - WEB TECHNOLOGY LAB

SEMESTER:II/IV	COURSE CODE: 22UCSCAP1	CREDIT: 2
PART-III	COURSE TITLE: WEB TECHNOLOGY LAB	HOURS: 3/W

COURSE OBJECTIVE:

1. To impart Practical Training in Control panel tools.
2. Familiarize with HTML Tags.
3. Build programs using Java script.
4. Provide knowledge on working with events and methods

LIST OF PROGRAMS HOURS:45

1. Create a web page with advanced layouts and positioning with CSS and HTML.
2. Design a website with different methods of embedding CSS in a web page.
3. Create a static web page which displays your personal details.
4. Design a signup form to validate username and password using Java script.
5. Create a webpage with HTML describing your department using paragraph and list tags.
6. Create a table to show your class time table.
7. Design a web page and embed various multimedia features in the page.
8. Write a JavaScript program to convert temperatures to and from Celsius, Fahrenheit.
9. Create a simple calculator, which can perform the basic arithmetic operations using JavaScript.
10. Validate the registration using JavaScript for with the following criteria:
 - Name and Age should be Mandatory Fields.
 - Password and Re-enter Password fields should contain same value.
 - Name field should accept only character values.

COURSE OUTCOME:

1. Study all the Basic tools.
2. Practice the usage of web page creation and useable objects.
3. Apply various effects on webpage.

4. Analysis the use of java script and html code.

5. Understand the user-defined functions and implement in Java script.

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1-LOW 2- MODERATE 3-HIGH

SEMESTER: I ALLIED: I PART: III	22UCSCA03: DATA MINING	HOURS:4 CREDIT:3
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COURSE OBJECTIVES

- 1) To understand basic concepts of Data Mining.
- 2) To understand the concept of Data processing.
- 3) To understand and concept of Data warehouse & OLAP.
- 4) To understand the concepts of Association rules.
- 5) To understand the concepts of Trends in mining.

Unit I : Basics

Hours: 12

Data Mining - Introduction - Meaning- importance of Data mining - various kinds of data - Data Mining Functionalities – Various kinds of Patterns - Pattern Interesting Classification of Data mining Systems - Data mining Task Primitives – Integration of Data Mining System – Major issues in Data Mining.

Unit II: Data Processing

Hours: 12

Process the Data Descriptive Data Summarization – Measuring Central Tendency Dispersion of Data Graphic Displays of –Basic Descriptive Data Summaries Data Cleaning Data Integration and Transformation data Reduction Data Discrimination - Concept Hierarchy Generation.

Unit III: Data ware House &OLAP

Hours: 12

Data Warehouse OLAP Technology An overview - Data Warehouse Multidimensional Data Model Data Warehouse Architecture Data Warehouse Implementation from Data Warehouse to Data mining.

Unit IV: Mining

Hours: 12

Frequent Patterns Associations Correlations - Basic Concepts Road Map Efficient Scalable Frequent Item set Mining methods Mining – Various Kinds of Association rules Analysis - Association mining to Correlation Constrain Based Association mining.

Unit V: Applications Trends

Hours: 12

Data mining Applications Data mining – System Products Research Prototype Additional Themes on Data Mining Social impact of Data mining Trends in Data mining.

COURSE OUTCOMES

After completion of the course, the student will be able to:

- 1) Understand the concepts of data mining.
- 2) Understand the concepts of data preprocessing & cleaning.
- 3) Understand the concepts of data warehouse & OLAP technology.
- 4) Know the concepts of correlation & Association rule.
- 5) Analysis the concepts of application Trends in Mining

Text Book

- 1) Jiawei Han and Micheline Kamber , Morgan Kaufmann Publishers, Second Ed (Chapter 1,2,3,5,11) (An imprint of Elsevier) **“Data Mining (Concepts and Techniques)”**.
- 2) Ian H. Witten & Eibe Frank, **Data Mining** (Practical Machine Learning Tools and Techniques, **Publishers:** Morgan Kaufmann Publishers (Second Edition)
- 3) Alex Benson, Stephen V.Smith, **Data Ware housing, Data mining& Author:** TataMcGraw–Hill, **OLAP**(Edition2004)

Reference Books

- 1) Karguta, Joshi, Sivakumar & Yesha Publishers ,2007, Printice Hall of India “Data Mining (Next Generation Challenges and Future Directions) “
- 2) Alex Benson, Stephen V ,2004, Smith Publishers , Tata McGraw – Hill “Data Warehousing, Data mining & OLAP “.
- 3) Dr.Rizwan Ahmed, “Data Mining” Margham Publications, India.

Mapping with Programme Outcomes

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PO – Programme Outcome, CO – Course outcome

1 – Low, 2 – Moderate, 3 – High

SEMESTER:II ALLIED: II PART: III	22UCSCA04: MANAGEMENT INFORMATION SYSTEM	HOURS:4 CREDIT:3
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COURSE OBJECTIVES

- 1) To understand basic concepts of Management information.
- 2) To understand the concept of types of information system.
- 3) To understand and concept of system Analysis.
- 4) To understand the concepts of Management information.
- 5) To understand the concepts of development & maintenance of MIS.

Unit I : Basics

Hours: 12

Management Information: Meaning of Information – Attributes of Information – Information needs of Managers – Web databases – Data warehousing – Knowledge Management – Information System for decision making.

Unit II: Types of Information systems

Hours: 12

Transaction Processing Systems – Office automation systems – Decision Support Systems – Executive Support Systems – Management Information systems: Evolution of MIS – Computers and MIS.

Unit III: System Analysis

Hours: 12

System planning and the mutual investigation – System design – The process and stages of system design – Input/output forms design – File Organisation – System implementation

Unit IV: Management Information

Hours: 12

Management information needs and communication links for marketing system, Production system, Accounting System, Manufacturing system, inventory control system and budgetary control system – IS organisation – Top managements responsibility – Data Processing group's responsibility.

Unit V Development, Maintenances of MIS

Hours: 12

Operation of manual information system, Role of Computer in MIS – Database concepts, Expert systems – System audit

COURSE OUTCOMES

After completion of the syllabus, the student would be able to:

- 1) Understand the concepts of management information & its needs.
- 2) Understand the concepts of types of information system
- 3) Understand the concepts of system Analysis
- 4) Know the concepts of production system
- 5) Know the concepts of maintenance of MIS

Text Books

- 1) Effy Oz, 2002, Thomson Learning Course Technology , Second edition “Management Information Systems”,.
- 2) Jawadekar W.S, 2002 , Tata McGraw Hill Publishing Company Ltd,. “Management Information Systems”.
- 3) Kenneth.C Laudon and Jane P. Laudon,2002, Prentice Hall of India Ltd,
- 4) “Management Information Systems”.

Reference Books

- 1) David Knoenke (1989), Tata McGraw Hill “Management Information Systems”,New Delhi.
- 2) Iandon K.C and Landon J.P (2001), Maxwell Macmillan Publishing Company.
- 3) “Management Information Systems’.
- 4) Murdic Rose and Elaggett, “Information System for Modern Management,
- 5) Prentice Hall.

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1 – Low, 2 – Moderate, 3 – High