

BON SECOURS COLLEGE FOR WOMEN

(Autonomous)



Accredited with A++ Grade by NAAC in the Cycle II
Affiliated to Bharathidasan University, Tiruchirappalli
UGC Recognized under Section 2(f) and 12 (B)
An ISO 21001:2018 Certified Institution
Vilar Bypass, Thanjavur-613006, Tamilnadu

DEPARTMENT OF COMPUTER APPLICATIONS

ALLIED PAPER

B.A., History

Allied Course-1

24UCA301: Computer Applications for History

Syllabus

Unit 1: Introduction to Computers and Digital History

Basics of computer hardware and software - Introduction to Digital Humanities - Role of computers in historical research and archives Online databases and repositories for historians.

Unit II: Data Management and Word Processing for Historians

MS Word, Google Docs, and LaTeX for historical documentation Excel and Google Sheets for historical data organization Bibliographic software: Zotero, Mendeley, EndNote - OCR (Optical Character Recognition) for digitizing historical texts.

Unit III: Digital Archiving and Historical Databases

Digital archives and preservation: National Archives, British Library, etc. - Metadata and cataloging in history research - Historical databases: JSTOR, Project MUSE, Digital South Asia Library - Creating digital timelines and virtual exhibits.

Unit IV: Geographic Information Systems (GIS) for History

Introduction to GIS and spatial analysis - Mapping historical data: ArcGIS, QGIS - Case studies: Historical mapping projects-Google Earth and Open Street Map for historians.

Unit V: Emerging Technologies in Historical Research

Artificial Intelligence (AI) and Machine Learning in history 3D Reconstruction and Virtual Reality (VR) in historical studies - Digital storytelling and visualization tools: Tableau, Flourish - Ethical issues and challenges in digital history.

Text Books:

1. Daniel J. Cohen & Roy Rosenzweig, Digital History: A Guide to Gathering, Preserving, and Presenting the Past on the Web.
2. Toni Weller, History in the Digital Age.
3. Shawn Graham, Ian Milligan, Scott Weingart, The Historian's Macroscopic: Big Digital History
4. M. J. Lewis, Using Computers in History

5. Paul Longley et al., Geographic Information Systems and Science

Reference Books:

1. Patrick Manning, Big Data in History
2. Tim Hitchcock & William J. Turkel, Digital History: New Approaches to the Past
3. Mark Greengrass & Lorna Hughes, The Virtual Representation of the Past
4. Julianne Nyhan & Andrew Flinn, Digital Humanities: The Basics
5. Ian Gregory & Paul S. Ell, Historical GIS: Technologies, Methodologies, and Scholarship.

UNIT	CO. NO.	UPON COMPLETION OF THIS COURSE THE STUDENTS WILL BE ABLE TO	COGNITIVE LEVEL
Unit - 1	CO1	Understand fundamental concepts in Computer aided Designing	K1 – K3
Unit - 2	CO2	Apply and experiment with Computer aided Designing Tools and Features.	K1 –K3
Unit- 3	CO3	Apply the use of the pen tool, direct selection tool, and basic navigation tools like zoom and hand tools for object manipulation	K1 –K3
Unit - 4	CO4	Analyze the relationship between garment elements and how different Illustrator tools can be used to enhance the design	K1–K4
Unit - 5	CO5	Evaluate the effectiveness of using brushes and symbols in creating detailed and professional fashion sketches	K1 –K4

SYLLABUS**Unit – I INTRODUCTION**

Introduction and meaning for CAD, Computer in the Fashion industry. Acceptance of new technology. Quick response technology

Unit – II TECHNOLOGY IN CAD

CAD in today's fashion industry. Types of CAD systems illustration/sketchpad system. Texture mapping Textile design system. Draping software. Embroidery system, specification and costing system.

Unit – III GETTING STARTED IN ADOBE ILLUSTRATOR

Introduction to Adobe Illustrator ,Work space, Tool bar, layer panel, UNDO, Drawing basic shapes, Selecting objects, Using Colours,Path,The pen tool, direct selection tool, zoom tool, hand tools and saving files.

Unit – IV BASICS OF ADOBE ILLUSTRATOR

Rotate; reflect, join, average, path finder, drawing flats, the basic T- Shirts, Drawing collars, cuffs, sleeves, and buttons.

Unit – V BRUSHES AND SYMBOLS IN ADOBE ILLUSTRATOR

Brushes, creating brushes, editing brushes, changing brush colour, saving brushes, loading brushes, symbols, editingsymbols, calligraphicbrush, the blob brush.

Text Books:

1. **Unit- 1**James D. Bethune, (4thEdition, 2018)*Engineering Design Graphics: Sketching, Modeling, and Visualization*,Pearson.
2. **Unit -2**Mikell P. Groover,(1st Edition, 2015)*Fundamentals of Computer-Aided Design and Manufacturing*,Wiley.
3. **Unit – 3 to 5** Robin Schneider, (Illustrated edition,2013) *Adobe for Fashion: Illustrator CS6,The Ultimate Guide to Drawing Flats*,Lulu.com.

Computer Aided Designing

Course Code : 24UCA301

UNIT – I DEVELOPING/DESIGNING THE FOLLOWING IN COMPUTER:

1. Motifs using Coral draw and Adobe Photoshop
2. Weave patterns for dobby weave
3. Weave patterns for jacquard weave

UNIT – II DEVELOPING/DESIGNING THE FOLLOWING IN COMPUTER:

1. Motifs for embroidery and cross stitch
2. Motifs for screen printing
3. Patterns for pattern making and grading

UNIT – III DEVELOPING/DESIGNING THE FOLLOWING IN COMPUTER:

1. Patterns for pattern making and grading
2. Design library for garment details (skirts, sleeves, cuffs, collars, and pockets)
3. Garment designs for children's garment with colour combination

UNIT – IV DEVELOPING/DESIGNING THE FOLLOWING IN COMPUTER:

1. Garment designs for men's garment with colour combination
2. Garment designs for women's garment with colour combination

UNIT – V DEVELOPING/DESIGNING THE FOLLOWING IN COMPUTER:

1. Texture mapping using computers (changing different textures of garment)
2. Bringing variation in face framing details using computers (changing accessories, hair style, hat, necklines, eye glasses, make ups)

UNIT – VI CURRENT CONTOURS (For continuous internal assessment only):

1. Regular Laboratory experiment
2. Group work
3. Internal tests
4. End

Semester Exam

REFERENCES:

1. Taylor P, "Computers in Fashion industry", Heinemann publishers 1990.
2. Veinsinet D D, "Computer aided drafting and Design Concept & Applications, 1987.
3. Mikell. P. Groover, Emory W. Zimmers; Jr, "CAD /CAM computer aided design 32 and manufacturing", Printice Hall of India PVL. Ltd.
4. Individuality in Clothing Selection and Personal Appearance, Suzanne G. Marshall, Hazel C, Jackson M, Sue Stanley, Mary Kelgen, Phullis Touchie Specnt, New Jersey,2000.

5. Fashion Design on Computers, Kathleen Colussey M, N.J. Prentice Hall,
Upper Saddle River, 2000.

6. Computer Aided Pattern Design and Product Development, Alison Beazley
Terry bond, Black Wele, Amazon, 2003.

B. Sc Mathematics
SEMESTER-I
Allied Course
24UCS301: C Programming

Credits: 3

Internal Marks: 25

Contact Hours: 3

External Marks: 75

Course Objectives:

The course aims to equip students with the fundamentals of C programming, including syntax, data types, and control structures. Upon completion, students will be able to write efficient C programs and apply programming skills to solve real-world problems.

Course Prerequisites

- Basic computer skills and mathematical foundation are required.
- Familiarity with logical thinking and problem-solving is also recommended.

Syllabus

UNIT - I: Algorithms – Flow charts – Developing algorithms and flowcharts for solving simple problems using sequential, selection and iterative programming Structures.

UNIT - II: History of C and its importance – Structure of a C program – Data Types – Constants and Variables – Operators and Expressions – Control structures – Looping structures.

UNIT – III: Arrays – Character Arrays and Strings – User defined functions.

UNIT - IV: Pointers: Introduction – Pointer Expressions – Chain of Pointers – Pointers and Arrays – Array of Pointers – Pointers as function arguments – Functions returning Pointers – Pointers to Functions – Function pointer – Pointers and Structures.

UNIT - V: Structures: Introduction – Defining a structure – Declaration of structure – Accessing Structures members – Array of Structures – Structures within structures – Structures and functions – Structures and Pointers – Union. Files: Opening and closing files – Operations on files.

Text Book 1. E. Balagurusamy , “ Programming in ANSI C “ , 8th Edition , McGraw Hill , - 8th edition, published in 2019-Publisher: McGraw Hill

Reference Book 1. Greg Perry and Dean Miller - C Programming Absolute Beginner’s Guide – 6th Edition 2018 2. Mike McGrath's - C Programming in easy steps. The 5th edition Prentice Hall 3. David Griffiths and Dawn Griffiths' Head First C: book offers a unique approach to learning C O'Reilly Media

24UCS351: C Programming Lab

Contact Hours: 4

Credits: 2

Syllabus

1. To convert temperature from degree centigrade to fahrenheit
2. To find given number is odd or even
3. To find maximum between three numbers
4. To display monday to sunday using switch case
5. To display first ten natural numbers and their sum
6. Multiplication of two matrices
7. Maximum number in array using pointer
8. To reverse number using pointer
9. Quadratic equation using function
10. Factorial of a number using recursion
11. Call by reference and call by value
12. Create a file containing student details

SEMESTER-II

24UCS302: PRINCIPLES OF INFORMATION TECHNOLOGY

Credits: 3

Contact Hours: 3

Internal Marks: 25

External Marks: 75

Syllabus

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

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

UNIT III Database Management Systems Data Processing Introduction to Database Management System database design.

UNIT IV Introduction to Telecommunication Distributed System Internet - Intranet. Networking Communication System.

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

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

References Books: 1. Henry C. Lucas, Jr., Information Technology for Management McGraw Hill (Part-III).c, 1999 2. Williams, Sawyer, Hutchinson, Using Information Technology McGraw Hill. 1999 3. Stephen Doyle, "Understanding Information Technology", Stanley Thornes 2000 4. Kathleen M. Austin, Lorraine N. Bergkvist, "Principles of Information Technology, Good heart Willcox Company, 2015. 5. V. Raja Raman, "Introduction to Information Technology", PHI Learning Pvt. Ltd, 2018.

B. Sc Hospital Administration
SEMESTER-V
24UHA381: FUNDAMENTALS OF MICROSOFT

SYLLABUS

Unit I -Computer Fundamentals

Introduction to Computer -Characteristics and applications of computers -Hardware and software concepts -Input and output devices -Storage devices and memory -Number system basics.

Unit II - Windows Operating System

Introduction to Windows -Desktop, icons, and taskbar -File and folder management -Control panel and system settings -Installing and managing programs.

Unit III- Microsoft Word

Introduction to MS Word -Creating and editing documents -Formatting text and paragraphs - Inserting tables, images, and shapes -Page setup and printing -Mail merge.

Unit IV-Microsoft Excel

Introduction to spread sheet -Rows, columns, and worksheets -Data entry and formatting - Basic formulas and functions (SUM, AVERAGE, COUNT) -Charts and graphs -Sorting and filtering data.

Unit V -Microsoft PowerPoint & Internet

Introduction to PowerPoint -Creating slides and layouts -Adding images, charts, and animations -Slide transitions and presentation -Internet basics and email usage.

