V.V. VANNIAPERUMAL COLLEGE FOR WOMEN
(Belonging to Virudhunagar Hindu Nadars)
An Autonomous Institution Affiliated to Madurai Kamaraj University, Madurai
Re-accredited with 'A' Grade (3rd Cycle) by NAAC
VIRUDHUNAGAR - 626 001

BACHELOR OF COMPUTER APPLICATIONS – GRAPHIC DESIGN
PROGRAMME CONTENT
SEMESTER I

	Components		Title of the Course	Course Code	Hours per week	Credits	Exam. Hours	Marks		
								Int.	Ext.	Total
1	**Part I**		Tamil / Hindi Course I	23UTAG11/ 23UHDG11	6	3	3	25	75	100
2	**Part II**		English Course I	23UENG11	6	3	3	25	75	100
3	**Part III**	Core Course 1	Python Programming	23UGDC11	5	5	3	25	75	100
4		Core Course 2	**Core Practical 1:** Python Lab	23UGDC11P	5	5	3	25	75	100
5		Elective 1: Generic Discipline Specific	Discrete Mathematics - I	23UGDE11	4	3	3	25	75	100
6	**Part IV**	Skill Enhancement Course 1: Non Major Elective	Introduction to HTML	23UGDN11	2	2	2	25	75	100
7		Skill Enhancement : Foundation Course	Graphic Design Lab	23UGDF11P	2	2	2	25	75	100
Total					30	23				700

BACHELOR OF COMPUTER APPLICATIONS – GRAPHIC DESIGN - SEMESTER II

S.No.	Components		Title of the Course	Course Code	Hours per week	Credits	Exam. Hours	Marks		
								Int.	Ext.	Total
1	**Part I**		Tamil / Hindi Course II	23UTAG21/ 23UHDG21	6	3	3	25	75	100
2	**Part II**		English Course II	23UENG21	6	3	3	25	75	100
3	**Part III**	Core Course 3	Object Oriented Programming Concepts using C++	23UGDC21	5	5	3	25	75	100
4		Core Course 4	**Core Practical 2:** C++ Programming Lab	23UGDC21P	5	5	3	25	75	100
5		Elective 2: Generic Discipline Specific	Statistical Methods and its Applications – I	23UGDE21	4	3	3	25	75	100
6	**Part IV**	Skill Enhancement Course 2-Non Major Elective	Fundamentals of Information Technology	23UGDN21	2	2	2	25	75	100
7		Skill Enhancement Course 3	2D Animation Lab	23UGDS21P	2	2	2	25	75	100
	Total				**30**	**23**				**700**

B.C.A- GRAPHIC DESIGN (SEMESTER)
(2023 – 2024 onwards)

Semester I	**Python Programming**	Hours/Week: 5	
Core Course - 1		Credits: 5	
Course Code 23UGDC11		Internal 25	External 75

COURSE OUTCOMES

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

CO1	:	Learn the basics of python, Do simple programs on python, Learn how to use an array.
CO2	:	Develop program using selection statement, Work with Looping and jump statements, Do programs on Loops and jump statements.
CO3	:	Concept of function, function arguments, Implementing the concept strings in various application, Significance of Modules, Work with functions, Strings and modules.
CO4	:	Work with List, tuples and dictionary, Write program using list, tuples and dictionary.
CO5	:	Usage of File handlings in python, Concept of reading and writing files, Do programs using files.

UNIT I

Basics of Python Programming: History of Python-Features of Python-Liteal-Constants-Variables - Identifiers–Keywords-Built-in Data Types-Output Statements – Input Statements-Comments – Indentation- Operators-Expressions-Type conversions. Python Arrays: Defining and Processing Arrays – Array methods. **(15 Hours)**

UNIT II

Control Statements: Selection/Conditional Branching statements: if, if-else, nested if and if-elif-else statements. Iterative Statements: while loop, for loop, else suite in loop and nested loops. Jump Statements: break, continue and pass statements. **(15 Hours)**

UNIT III

Functions: Function Definition – Function Call – Variable Scope and its Lifetime-Return Statement. Function Arguments: Required Arguments, Keyword Arguments, Default Arguments and Variable Length Arguments- Recursion. Python Strings: String operations- Immutable Strings - Built-in String Methods and Functions - String Comparison. Modules: import statement- The Python module – dir() function – Modules and Namespace – Defining our own modules.

(15 Hours)

UNIT IV

Lists: Creating a list -Access values in List-Updating values in Lists-Nested lists -Basic list operations-List Methods. Tuples: Creating, Accessing, Updating and Deleting Elements in a tuple – Nested tuples– Difference between lists and tuples. **Dictionaries:** Creating, Accessing, Updating and Deleting Elements in a Dictionary – Dictionary Functions and Methods - Difference between Lists and Dictionaries. **(15 Hours)**

UNIT V

Python File Handling: Types of files in Python - Opening and Closing files-Reading and Writing files: write() and writelines() methods- append() method – read() and readlines() methods – with keyword – Splitting words – File methods - File Positions- Renaming and deleting files.

(15 Hours)

TEXTBOOKS:

1. ReemaThareja.”Python Programming using problem solving approach”, First Edition 2017, Oxford University Press.
2. Dr. R.Nageswara Rao, “Core Python Programming”, First Edition, 2017, Dream Tech Publishers.

REFERENCE BOOKS

1. VamsiKurama, “Python Programming: A Modern Approach”, Pearson Education.
2. Mark Lutz, ”Learning Python”, Orielly.
3. Adam Stewarts, “Python Programming”, Online.
4. Fabio Nelli, “Python Data Analytics”, APress.
5. Kenneth A. Lambert, “Fundamentals of Python – First Programs”, CENGAGE Publication.

WEB RESOURCES

1. https://www.guru99.com/python-tutorials.html
2. https://www.w3schools.com/python/python_intro.asp

3. https://www.geeksforgeeks.org/python-programming-language/
4. https://en.wikipedia.org/wiki/Python_(programming_language)
5. https://www.programiz.com/python-programming

Mapping with Programme Outcomes:

CO/PSO	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6
CO 1	3	2	2	3	3	3
CO 2	3	2	2	3	2	3
CO 3	3	2	2	3	2	2
CO 4	3	2	2	3	2	3
CO 5	3	2	2	3	3	3
Weightage of course contributed to each PSO	15	10	10	15	13	14

S-Strong-3   M-Medium-2 L-Low-1

V.V.VANNIAPERUMAL COLLEGE FOR WOMEN

VIRUDHUNAGAR

B.C.A- GRAPHIC DESIGN (SEMESTER)
(2023 – 2024 onwards)

Semester I		Hours/Week: 5	
Core Course - 2	**Python Lab**	Credits: 5	
Course Code		Internal	External
23UGDC11P		25	75

COURSE OUTCOMES

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

CO1	:	demonstrate the understanding of syntax and semantics of Python Programming
CO2	:	identify the problem and solve using PYTHON programming techniques.
CO3	:	identify suitable programming constructs for problem solving.
CO4	:	analyze various concepts of PYTHON language to solve the problem in an efficient way.
CO5	:	develop a PYTHON program for a given problem and test for its correctness.

List of Programs

1. Program using variables, constants, I/O statements in Python.
2. Program using Operators in Python.
3. Program using Conditional Statements.
4. Program using Loops.
5. Program using Jump Statements.
6. Program using Functions.
7. Program using Recursion.
8. Program using Arrays.
9. Program using Strings.
10. Program using Modules.
11. Program using Lists.
12. Program using Tuples.
13. Program using Dictionaries.

14. Program for File Handling.

Mapping with Programme Outcomes:

CO/PSO	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6
CO 1	2	2	2	2	3	2
CO 2	2	1	3	2	-	2
CO 3	3	3	1	1	1	2
CO 4	2	3	3	1	-	1
CO 5	3	2	3	1	1	-
Weightage of course contributed to each PSO	12	11	12	7	5	7

S-Strong-3   M-Medium-2 L-Low-1

B.C.A- GRAPHIC DESIGN (SEMESTER)
(2023-2024 onwards)

Semester I		Hours/Week: 4	
Elective 1: Generic Discipline Specific	**Discrete Mathematics-I**	Credits: 3	
Course Code: **23UGDE11**		Internal 25	External 75

Course Outcomes:

On completion of the course the students will be able to

CO1   define the basic concepts in propositional logic, relations, counting, graph theory and matrices [K1]

CO2   understand the mathematical concepts in logic, relations, permutation and combinations, graphs and matrices.[K2]

CO3   explain the concepts in predicates and quantifiers , partial orderings, recurrence relations , graphs and matrices. [K2]

CO4   solve problems in discrete mathematics. [K3]

CO5   apply the knowledge gained in discrete mathematics to other fields [K3]

UNIT I

The Foundations: Logic and Proofs: Propositional logic – Applications of Propositional logic – Propositional equivalences – (Exclude Propositional satisfiability, Applications of satisfiability, Solving satisfiability problems, and its related problems) – Predicates and Quantifiers – Rules of inference.   (12 Hours)

UNIT II

Relations: Relations and their properties – Representing relations – Closures of relations – Partial orderings (Theorems statement only; Exclude lexicographic ordering - Exclude Lattices)

(12Hours)

UNIT III

Counting: The basic of counting - The pigeonhole principle – Permutation and Combinations – Applications of recurrence relations – Solving recurrence relations – Divide and Conquer algorithms and recurrence relations. (All theorems and Results statement only)

(12 Hours)

UNIT IV

Graphs: Graphs and Graphs models, (Excluding Biological networks; Tournaments; all its related examples and problems) – Graph terminology and special types of graphs – Representing graphs and Graph isomorphism – Connectivity (paths – connectedness in undirected graphs – paths and isomorphism – counting paths between vertices) – shortest path problems.   (12Hours)

UNIT V

Matrices: Introduction – operations – inverse – Rank of a matrix, solution of simultaneous linear equations – Eigen values and Eigen Vectors.   (12 Hours)

TEXT BOOKS

1. Kenneth.H.Rosen, Discrete Mathematics and its applications, Seventh Edition, McGrawHill Publishing Company, 2012 .

Unit I : Textbook 1 Chapter 1: Sections: 1.1, 1.2, 1.3, 1.4, 1.6

Unit II : Textbook 1 Chapter 9: Sections: 9.1, 9.3, 9.4, 9.5, 9.6

Unit III : Textbook 1 Chapter 6: Sections: 6.1, 6.2, 6.3

Chapter 8: Sections: 8.1, 8.2, 8.3 (Pages: 527 -529only)

(Exclude algorithms and relations, on page 507 and its related problems)

Unit IV : Textbook 1 Chapter 10: Sections: 10.1, 10.2, 10.3, 10.4, 10.6

Unit V : Textbook 2 Chapter 6 :Sections :6.1 to 6.5, and 6.7

2. M.Venkataraman, N.Sridharan and N.Chandrasekaran,, Discrete Mathematics, The National Publishing Company, 2009

REFERENCE BOOKS

1. S.Arumugam and A. ThangapandiIsaac, Modern Algebra, Scitech publications 2005.

2.S.Arumugam and S.Ramachandran, Invitation to Graph Theory, Scitech Publications,2005, Chennai.

3.Tremblay and Manohar, Discrete Mathematical Structures with applications to Computer Science -, McGraw Hill,1997.

Web Resources
Web resources from NDL Library, E-content from open-source libraries

Course Code 23UCAE11	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	3	2	3	1	-	1	-
CO2	3	1	3	3	3	1	-
CO3	3	3	3	3	2	1	-
CO4	3	1	3	3	2	3	1
CO5	3	3	3	3	3	3	1

B.C.A- GRAPHIC DESIGN (SEMESTER)
(2023 – 2024 onwards)

Semester I		Hours/Week: 2	
Skill Enhancement Course 1: Non Major Elective	**Introduction to HTML**	**Credits: 2**	
Course Code **23UGDN11**		**Internal** 25	**External** 75

COURSE OUTCOMES

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

CO1 : Know the basic concept in HTML and concept of resources in HTML [K1]

CO2 : Knows design concept, concept of Meta Data and understand the conce_ save the files. [K2]

CO3 : Understand the page formatting and concept of list. [K2]

CO4 : Creating Links and know the concept of creating link to email address. [K3]

CO5 : Concept of adding images and understand the table creation. [K3]

UNIT I

Introduction: Web Basics: What is Internet–Web browsers–What is Webpage – HTML Basics: Understanding tags. **(6 Hours)**

UNIT II

Tags for Document structure (HTML, Head, BodyTag). Block level text elements: Headings paragraph (<p> tag) – Font style elements: (bold, italic, font, small, strong, strike, big tags). **(6 Hours)**

UNIT III

Lists: Types of lists: Ordered, Unordered – Nesting Lists – Other tags: Marquee, HR, BR – Using Images – Creating Hyperlinks. **(6 Hours)**

UNIT IV

Tables: Creating basic Table, Table elements, Caption – Table and cell alignment – Rowspan, Colspan – Cell padding. **(6 Hours)**

UNIT V

Frames: Frameset – Targeted Links – No frame – Forms: Input, Text area, Select, Option. **(6 Hours)**

TEXTBOOKS:

1. "Mastering HTML5 and CSS3 Made Easy", Teach U Comp Inc., 2014.

2. Thomas Michaud, "Foundations of Web Design: Introduction to HTML & CSS".

WEB RESOURCES:

1. https://www.teachucomp.com/samples/html/5/manuals/Mastering-HTML5-CSS3.pdf

2. https://www.w3schools.com/html/default.asp

Mapping with Programme Outcomes:

CO/PSO	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6
CO 1	3	2	1	-	-	1
CO 2	2	2	2	1	-	-
CO 3	3	1	1	-	1	-
CO 4	1	2	1	2	2	1
CO 5	3	2	1	2	3	2
Weightage of course contributed to each PSO	12	9	6	5	6	4

S-Strong-3   M-Medium-2 L-Low-1

B.C.A- GRAPHIC DESIGN (SEMESTER)
(2023 – 2024 onwards)

Semester I		Hours/Week: 2	
Skill Enhancement : Foundation Course	**Graphic Design Lab**	**Credits: 2**	
Course Code **23UGDF11P**		**Internal** **25**	**External** **75**

COURSE OUTCOMES

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

CO1 : examine the given design problem, identify the basic tools and features in Photoshop.

CO2 : design Photoshop document implementing the required tools and elements to get a good photo effect.

CO3 : execute the steps to produce required output

CO4 : present output effectively and prepare the record.

CO5 : explain the necessity of tools used, deduce the changes to be incorporated over the developed application using the acquired knowledge.

Create the following programs

1. Use of basic Photoshop tools and techniques
2. Changing the backgroundu
3. Filters in Photoshop
4. Create rainbow, rain effects
5. Create 3D Photo cube
6. Animate the flame of a candle
7. Product advertisement
8. Cube creation

9. CD Logo creation

10. Glowing Effect

11. Animation

12. Image with in text

13. Photo effect
14. Glossy text effect
15. Hair coloring effect

Mapping with Programme Outcomes:

CO/PSO	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6
CO 1	3	3	1	1	-	1
CO 2	2	-	1	1	2	1
CO 3	3	3	1	1	-	1
CO 4	1	3	2	1	-	1
CO 5	3	2	1	1	-	1
Weightage of course contributed to each PSO	12	11	6	5	2	5

S-Strong-3   M-Medium-2 L-Low-1

B.C.A- GRAPHIC DESIGN (SEMESTER)
(2023 – 2024 onwards)

Semester II	**Object Oriented Programming Concepts Using C++**	Hours/Week: 5	
Core Course - 3		Credits: 5	
Course Code **23UGDC21**		Internal	External
		25	75

COURSE OUTCOMES

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

CO1 : Remember the program structure of C with its syntax and semantics

CO2 : Understand the programming principles in C (data types, operators, branching and looping, arrays, functions, structures, pointers and files)

CO3 : Apply the programming principles learnt in real-time problems

CO4 : Analyze the various methods of solving a problem and choose the best method

CO5 : Code, debug and test the programs with appropriate test cases

UNIT I

Introduction to C++ - key concepts of Object-Oriented Programming –Advantages – Object Oriented Languages – I/O in C++ - C++ Declarations. Control Structures : - Decision Making and Statements : If ..else, jump, goto, break, continue, Switch case statements - Loops in C++ :for, while, do - functions in C++ - inline functions – Function Overloading.**(15 Hours)**

UNIT II

Classes and Objects: Declaring Objects – Defining Member Functions – Static Member variables and functions – array of objects –friend functions – Overloading member functions – Bit fields and classes – Constructor and destructor with static members.   **(15 Hours)**

UNIT III

Operator Overloading: Overloading unary, binary operators – Overloading Friend functions –type conversion – Inheritance: Types of Inheritance – Single, Multilevel, Multiple, Hierarchal, Hybrid, Multi path inheritance – Virtual base Classes – Abstract Classes.

(15 Hours)

UNIT IV

Pointers – Declaration – Pointer to Class , Object – this pointer – Pointers to derived classes and Base classes – Arrays – Characteristics – array of classes – Memory models – new and delete operators – dynamic object – Binding, Polymorphism and Virtual Functions.

(15 Hours)

UNIT V

Files – File stream classes – file modes – Sequential Read / Write operations – Binary and ASCII Files – Random Access Operation – Templates – Exception Handling - String – Declaring and Initializing string objects – String Attributes – Miscellaneous functions.

(15 Hours)

TEXTBOOK:

1. E. Balagurusamy, *Object-Oriented Programming with C++,* 7th Edition, TMH 2013.

REFERENCE BOOKS

1. Ashok N Kamthane*, Object-Oriented Programming with ANSI and Turbo C++,* Pearson Education 2003.

2. Maria Litvin& Gray Litvin, *C++ for you*, Vikas publication 2002.

WEB RESOURCES

https://alison.com/course/introduction-to-c-plus-plus-programming

Mapping with Programme Outcomes:

CO/PSO	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6
CO 1	3	2	1	-	-	1
CO 2	2	2	2	1	-	-
CO 3	3	1	1	-	1	-
CO 4	1	2	1	2	2	1
CO 5	3	2	1	2	3	2
Weightage of course contributed to each PSO	12	9	6	5	6	4

S-Strong-3   M-Medium-2 L-Low-1

B.C.A- GRAPHIC DESIGN (SEMESTER)
(2023 – 2024 onwards)

Semester II		Hours/Week: 5	
Core Course - 4	**C++ Programming Lab**	Credits: 5	
Course Code **23UGDC21P**		Internal 25	External 75

COURSE OUTCOMES

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

CO1 : Remember the program structure of C with its syntax and semantics

CO2 : Understand the programming principles in C (data types, operators, branching and looping, arrays, functions, structures, pointers and files)

CO3 : Apply the programming principles learnt in real-time problems

CO4 : Analyze the various methods of solving a problem and choose the best method

CO5 : Code, debug and test the programs with appropriate test cases

1. Write a C++ program to demonstrate function overloading, Default Arguments and Inline function.
2. Write a C++ program to demonstrate Class and Objects
3. Write a C++ program to demonstrate the concept of Passing Objects to Functions
4. Write a C++ program to demonstrate the Friend Functions.
5. Write a C++ program to demonstrate the concept of Passing Objects to Functions
6. Write a C++ program to demonstrate Constructor and Destructor
7. Write a C++ program to demonstrate Unary Operator Overloading
8. Write a C++ program to demonstrate Binary Operator Overloading
9. Write a C++ program to demonstrate:
   - Single Inheritance
   - Multilevel Inheritance

- Multiple Inheritance
- Hierarchical Inheritance
- Hybrid Inheritance

10. Write a C++ program to demonstrate Virtual Functions.

11. Write a C++ program to manipulate a Text File.

12. Write a C++ program to perform Sequential I/O Operations on a file.

13. Write a C++ program to find the Biggest Number using Command Line Arguments

14. Write a C++ program to demonstrate Class Template

15. Write a C++ program to demonstrate Function Template.

16. Write a C++ program to demonstrate Exception Handling.

TEXT BOOKS

E. Balagurusamy, *Object-Oriented Programming with C++,* 7th Edition, TMH 2013.

REFERENCE BOOKS

1. Ashok N Kamthane*, Object-Oriented Programming with ANSI and Turbo C++,* Pearson Education 2003.

2. Maria Litvin & Gray Litvin, *C++ for you*, Vikas publication 2002.

WEB RESOURCES

https://alison.com/course/introduction-to-c-plus-plus-programming

Mapping with Programme Outcomes:

CO/PSO	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6
CO 1	3	3	3	3	1	2
CO 2	2	3	3	3	1	2
CO 3	2	3	3	3	1	2
CO 4	2	3	3	3	1	2
CO 5	2	3	3	3	1	2
Weightage of course contributed to each PSO	11	15	15	15	5	10

S-Strong-3   M-Medium-2 L-Low-1

V.V. VANNIAPERUMAL COLLEGE FOR WOMEN

(Belonging to Virudhunagar Hindu Nadars)
An Autonomous Institution Affiliated to Madurai Kamaraj University, Madurai
Re-accredited with 'A' Grade (3rd Cycle) by NAAC
Virudhunagar - 626 001

B.C.A- GRAPHIC DESIGN (SEMESTER)
(2023-2024 onwards)

Semester II	**Statistical Methods and its Applications - I**	Hours/Week: 4	
Elective 2: Generic Discipline Specific		Credits: 3	
Course Code **23UGDE21**		Internal 25	External 75

Course Outcomes:

CO1	Define the basic concepts in probability, random variables, some special distributions and Tests of significance.
CO2	Explain the properties of Probability, Generating Function, special distributions and the theory of sampling distributions to find solutions of real life problems.
CO3	discuss the independence of events, Cumulant Generating Function of random variable, significance for large and small samples.
CO4	Solve problems in random variables, generating functions, some special distributions, sampling distributions and test the significance for small samples.
CO5	determine the Conditional Probability, Expectation, Moments, significance for large and small samples to arrive at solid conclusion about the values of the population parameter.

UNIT I

Definition of Sample Space – Events – Definition of Probability – Addition and Multiplication laws of probability – independence of events- Conditional Probability –Baye's theorem – Simple Problems.   (13 Hours)

UNIT II

Random Variables (Discrete and Continuous) – Distribution Function –Expectation

and Moments – Measures of skewness and Kurtosis -Moment generating Function-
Probability Generating Function – Cumulant Generating Function – Simple Problems.

(13 Hours)

UNIT III

Discrete distribution : Binomial, Poisson. Continuous distribution : Normal

(14 Hours)

UNIT IV

Sampling distribution - Tests of significance for large samples using normal
Distribution. (10 Hours)

UNIT V

Tests of significance for small samples using the chi-square distribution - Student's t-
distribution - F-distribution. (10 Hours)

TEXT BOOKS

1. S.C .Gupta &V.K .Kapoor :Fundamentals of Mathematical Statistics ,Sultan &sons

REFERENCE BOOKS

1. H.C.Saxena Elementary Statistics, Abhiror Prakashan ,New Delhi ,2008.
   2.T.Veerarajan ,Fundamental of Applied Statistics, Yesdee Publishing Private
   Limited ,
   2017.
   3. Kapoor, Mathematical statistics, second edition, Delhi Pusthk Sadan, 1961
   4. S.C. Gupta and V.K Kapoor, Fundamental of Applied Statistics, Third
   edition, Sultan
   Chand & Sons, New Delhi.
   5. P.R. Vittal, Mathematical Statistics,Margham Publications, Chennai, 2004.

B.C.A- GRAPHIC DESIGN (SEMESTER)
(2023 – 2024 onwards)

Semester II		Hours/Week: 2	
Skill Enhancement Course 2 : Non Major Elective	**Fundamentals of Information Technology**	Credits: 2	
Course Code **23UGDN21**		Internal 25	External 75

COURSE OUTCOMES

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

CO1	:	Learn the basics of computer, Construct the structure of the required things in computer, learn how to use it.
CO2	:	Develop organizational structure using for the devices present currently under input or output unit.
CO3	:	Concept of storing data in computer using two header namely RAM and ROM with different types of ROM with advancement in storage basis.
CO4	:	Work with different software, Write program in the software and applications of software.
CO5	:	Usage of Operating system in information technology which really acts as a interpreter between software and hardware.

Unit I:

Introduction to Computers - Generations of Computer – Data and Information – Components of Computer – Software – Hardware – Input Devices - Output Devices — Types of Operating System. **(6 Hours)**

Unit II:

MS Word: Introduction – Elements of Window – Files, Folders and Directories – Text

Manipulating: Cut, Copy, Paste, Drag and Drop – Text Formatting: Font – Style, Size, Face and Colors (Both foreground and background) – Alignment - Bullets and Numbering - Header and footer- watermark – inserting objects (images, other application document) – Table creation – Mail merge. **(6 Hours)**

Unit III:

Ms Excel: Introduction – Inserting rows and columns – Sizing rows and columns – Implementing formulas – Generating series - Functions in excel – Creation of Chart – Inserting objects – Filter – Sorting – Inserting worksheet. **(6 Hours)**

Unit IV:

MS PowerPoint: Introduction – Slides Manipulation (Inserting new, Copy, paste, delete and duplicate slides) – Slide show– Types of Views – Types of Animations – Inserting Objects – Implementing multimedia (Video and Audio) – Templates (Built-in and User-Defined).

(6 Hours)

Unit V:

Internet: Introduction to Internet and Intranet – Services of Internet - Domain Name – URL – Browser – Types of Browsers – Search Engine - E-Mail – Basic Components of E-Mail –.How to send group mail. E-Commerce: Digital Signature – Digital Currency – Online shopping and transaction. **(6 Hours)**

TEXT BOOKS:

1. Anoop Mathew, S. Kavitha Murugeshan (2009), *Fundamental of Information Technology*, Majestic Books.

2. Alexis Leon, Mathews Leon, *Fundamental of Information Technology*, 2nd Edition.

3. S. K Bansal, *Fundamental of Information Technology*.

REFERENCE BOOKS

1. Bhardwaj SushilPuneet Kumar, *Fundamental of Information Technology*

2. GG WILKINSON, *Fundamentals of Information Technology*, Wiley-Blackwell

3. A Ravichandran, *Fundamentals of Information Technology*, Khanna Book Publishing

WEB RESOURCES

1. https://testbook.com/learn/computer-fundamentals

2. https://www.tutorialsmate.com/2020/04/computer-fundamentals-tutorial.html

3. https://www.javatpoint.com/computer-fundamentals-tutorial

4. https://www.tutorialspoint.com/computer_fundamentals/index.htm

5. https://www.nios.ac.in/media/documents/sec229new/Lesson1.pdf

Mapping with Programme Outcomes:

CO/PSO	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6
CO 1	2	3	2	2	1	1
CO 2	3	2	3	2	3	3
CO 3	3	2	2	2	2	3
CO 4	2	3	3	3	3	1
CO 5	3	3	3	3	3	2
Weightage of course contributed to each PSO	13	13	13	12	12	10

S-Strong-3   M-Medium-2 L-Low-1

B.C.A- GRAPHIC DESIGN (SEMESTER)
(2023 – 2024 onwards)

Semester II		Hours/Week: 2	
Skill Enhancement Course 3	**2D Animation Lab**	Credits: 2	
Course Code **23UGDS21P**		Internal	External
		25	75

COURSE OUTCOMES

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

CO1 : demonstrate the various effects of text in flash.

CO2 : apply effect to various objects and give effects.

CO3 : make use of basic tools of action scripts, develop applications in Flash.

CO4 : Write programs for designing CD, Filmstrip.

CO5 : Select the required tools to create animated graphics with sound effects.

TextEffects

1. Typewriting

2. Marquee

3. Zooming

4. Rotatingtext

5. Jumblingtext

6. Handwriting

7. Reflectivetext

8. Knockouteffect

Animation

1. Bouncing aball

2. Shapetweening

3. Rotating & scaling of object

4. Sizing the object

5. Rangoli

6. Pencil drawing

7. Blinking star

8. Moving a vehicle

Action Scripts

1. Arithmeticoperation

2. Odd/Evennumbercheck.

3. Randomcolors

4. Rotatinga n image inside custom shape.

TEXT BOOK

Dreamtech, *Flash CS6 in Simple Steps*, 2013, Anand Book Binding House, New Delhi.

REFERENCE BOOKS

Chris Patmore, *The complete animation course*, Baron's Educational Series. (NewYork)

Flash Professional CC Class Room In a Book – Pearson.

WEB RESOURCES

1. https://thevirtualinstructor.com/adobeflashlessons.html

2. https://www.tutorialboneyard.com/simple-flash-animation/

3. https://edutechwiki.unige.ch/en/Flash_tutorials

Mapping with Programme Outcomes:

CO/PSO	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6
CO 1	3	3	3	3	1	2
CO 2	2	3	3	3	1	2
CO 3	2	3	3	3	1	2
CO 4	2	3	3	3	1	2
CO 5	2	3	3	3	1	2
Weightage of course contributed to each PSO	11	15	15	15	5	10

S-Strong-3   M-Medium-2 L-Low-1