SWAMI VIVEKANAND UNIVERSITY, SIRONJA, SAGAR (M.P.)

SYLLABUS

For
Diploma in Animation
Course Code : DAN

Department of Animation
Faculty of Animation& Multimedia

Duration of Course   :   1 Year
Examination Mode   :   Semester
Examination System   :   Non-Grading

Swami Vivekanand University, Sironja Sagar (M.P.)
2014-2015

Swami Vivekanand University, Sagar (M.P.)

Foundations of Computer (DAN0101)

Paper / Subject Code	Title of the Paper / Subject	Credit Allotted			Total Credit	Distribution of Marks									Grand Total (H= D+G)	Duration of Theory Exam
						Theory					Practical					
						End Sem.		Internal		Total (D= A +B+C)	End Sem.		Internal	Total (G= E+F)		
		L	T	P		Max (A)	Min	TW (B)	MST (C)		Max (E)	Min	LW (F)			
DAN 0101	Fundamentals of Computer	-	-	-	-	70	21	-	-	70	30	9	-	30	100	3 Hrs

UNIT- I   Marks : 14
Brief History of Development of Computers ,Computer System Concept, Computer System Characteristics
Capabilities and Limitations, Types of Computers-.Personal Computer (PCs) - IBM PCs, Types of PCs- desktop, Laptop, Notebook, Palmtop, etc. Basic Components of a Computer System - Control Unit, ALU, Input/Output semiconductor Memory. Storage fundamentals - Primary Vs Secondary memory.

UNIT- II   Marks : 14
Input Devices :Keyboard, Mouse, Joystick, Scanners, Digital Camera, MICR,OCR, OMR, , Light pen, Touch
Screen. Output Devices Monitors - Characteristics and types of monitor, Size, Resolution, Refresh Rate, Dot Pitch, Video Standard - VGA, SVGA, XGA etc. Printers - Daisy wheel, Dot Matrix, Inkjet, Laser. Plotter, Sound Card and Speakers.

UNIT- III   Marks : 14
Various Storage Devices - Magnetic Disks, Hard Disk Drives, Floppy, Disks, Optical Disks, Computer
Software ,Need, Types of Software's - System software, Application software System Software - Operating
System,   compiler   ,Assemblers,
Interpreter .

UNIT- IV   Marks : 14
Operating Systems –Functions ,Types- Batch, Single, Multiprogramming, Multiprocessing Programming
languages- Machine, Assembly, High Level, 4GL, Application Software - Word-processing, Spreadsheet, Presentation Graphics, Data Base Management Software, Number System, Number System of computers-Binary, Octal, Hexadecimal, their conversion. Coding System – ASCII, EBCDIC.

UNIT- V   Marks : 14
Direction of Transmissions Flow-Simplex, Half Duplex Full Duplex, Types of Network - LAN, WAN, MAN
etc. Topologies of LAN - Ring, Bus, Star, Mesh and Tree topologies. Computer Virus: Virus working principals, Types of viruses, Virus detection and Prevention Viruses on network.

Reference Books
1. COMPUTERS TODAY BY S.K. BASANDRA, GALGOTIA PUBLICATIONS.
2. FUNDAMENTALS OF INFORMATION TECHNOLOGY BY ALEXIS LEON &
   MATHEWS LEON,VIKAS PUBLISHING HOUSE, NEW DELHI.
3. DOS QUICK REFERENCE BY RAJEEV MATHUR, GALGOTIA PUBLICATIONS.

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Foundation Course in Classical Animation (DAN0102)

Paper / Subject Code	Title of the Paper / Subject	Credit Allotted			Total Credit	Distribution of Marks									Grand Total (H= D+G)	Duration of Theory Exam
						Theory					Practical					
						End Sem.		Internal		Total (D= A +B+C)	End Sem.		Internal	Total (G= E+F)		
		L	T	P		Max (A)	Min	TW (B)	MST (C)		Max (E)	Min	LW (F)			
DAN 0102	Foundation Course in Classical Animation	-	-	-	-	70	21	-	-	70	30	9	-	30	100	3 Hrs

UNIT- I   Marks : 14
Introduction to Experimental animation. Orientation into visual art from. Orientation into time and performing art from. Relevance of massage and medium and a relationship. "Introduction to cut out animation.(Card board sets, houses, layouts designing)".

UNIT-I I   Marks : 14
Clay Animation. Flip Books. Stop motion techniques. Animation set designing (Table top). Clay character modeling. Table top Model lighting. Technique of working in groups. Introduction to the equipment. The animators drawing tools. The Exposure sheet (X sheet)".The Basics of traditional 2D animation. Intro to the skill, required thereof.

UNIT-III   Marks : 14
Beginning life drawing. Use of simple shapes. How to draw drawings With the help of basic shapes Learning to draw lines, circles, ovals, scribbles, jig jag (random) patterns etc. Human anatomy. Proportion study of Human body parts. Learning basic bone structure, muscle flow, head, body, hands, feet Shading techniques.

UNIT-IV   Marks : 14
What is observation? Procedure-How to approach Importance of guide line-line of action. An intro on how to make drawings for animation, shapes and forms .

UNIT-V   Marks : 14
About 2D and 3D drawings. Caricaturing-fundamentals, Exaggeration, Attitude, Silhouettes. Boundary breaking exercises and warm-ups. Gesture drawing, Line drawing and quick sketches. Drawings from observation, memory and imagination.

Reference Books
1. Amarendra N Sinha & Arun D Udai , "Computer Graphics", McGraw Hill publication. Fundamental of Computer Graphics and Multimedia, Mukherjee, PHI Learning
2. Udit Agrawal, Computer Graphics & Multimedia,

List of Experiments
1. Write a program to implement DDA line drawing algorithm
2. Write a program to implement Bresenhames' line drawing algorithm.
3. Write a program to implement Bresenhames' circle drawing algorithm.q
4. Write a program to draw an ellipse using Bresenhames' algorithm.
5. Write a program to perform various transformations on line , square & rectangle
6. Study of various Animation file formats.
7. Case study of various Animation Softwares.
8. Case study of various Animation Applications.

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Graphic Designing (DAN0103)

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						Theory					Practical						
						End Sem.		Internal		Total (D= A +B+C)	End Sem.		Internal	Total (G= E+F)			
		L	T	P		Max (A)	Min	TW (B)	MST (C)		Max (E)	Min	LW (F)				
DAN 0103	Graphic Designing	-	-	-	-	70	21	-	-	70	30	9	-	30		100	3 Hrs

UNIT- I **Marks : 14**

Photoshop-History & introduction, the file menu, the tools, Drawing lines & shapes. Inserting picture and shapes, filling colors, text effects, working with layers, filters, Creating   design   patterns, Photoshop   presentations -static & dynamic presentation, WEB & WEB GALLERY using internet explorer in photo shop. creating animations using image ready, creating animations & presentations. Tips and tricks in Photoshop

Practical: (It will be assessed as part of internal assessment)
   1. How to make smooth curved lines in Photoshop?
   2. Extract an object from a given picture
   3.Create a new picture. Make it 300 pixels high and 400 pixels wide. The resolution should be 72 pixels/inch.
   4. How to create your very own animated beating heart in Photoshop?
   5. How to make falling objects that will work as seamless backgrounds and have objects falling at different paces in Photoshop?.

UNIT- II **Marks : 14**

Corel draw –An overview, menus and tools. Drawing –lines, shapes .inserting-pictures, objects, tables, templates, Adding special effects, Exporting drawings, outlining & filling objects, inserting symbols & Clip arts. Working   in   Corel   draw   presentation –adjusting   the   position,   resizing,   positioning, merging, color shades & shadows .working with advanced effects, special interactive effects. Creating-business cards, pamphlets, banners, news papers, books. Shortcut keys in Corel draw.

Practical: (It will be assessed as part of internal assessment)

   1. How to insert a picture in the existing image background?
   2. Create a 3D text in Corel Draw
   3. Create an advertisement for a Textile company in Corel
   4. Design a business card for a company embed photo in it.
   5. Design a banner for a marriage function

INTRODUCTION TO ADOBE PHOTOSHOP

About Photoshop, Navigating Photoshop, Menus and panels, Opening existing files, Exploring the Toolbox, Creating & Viewing a New Document, Customizing the Interface, Working with Images, Zooming & Panning an Image, Working with Multiple Images, Rulers, Guides & Grids, Undoing Steps with History

RESIZING & CROPPING IMAGES

Understanding Pixels & Resolution, The Image Size Command, Interpolation Options, Resizing for Print & Web, Cropping & Straightening an Image, Adjusting Canvas Size & Canvas Rotation

WORKING WITH BASIC SELECTIONS

Selecting with the Elliptical Marquee Tool, Using the Magic Wand & Free Transform Tool, Selecting with the Regular & Polygonal Lasso Tools, Combining Selections

GETTING STARTED WITH LAYERS

Understanding the Background Layer, Creating, Selecting, Linking & Deleting Layers, Locking & Merging Layers, Copying Layers, Using Perspective & Layer Styles

PAINTING IN PHOTOSHOP

Using the Brush Tool, Working with Colors & Swatches, Creating & Using Gradients, Creating & Working with Brushes, Using the Pencil & Eraser Tools, Painting with Selections

PHOTO RETOUCHING

The Red Eye Tool, The Clone Stamp Tool, The Patch Tool & the Healing Brush Tool, The Spot Healing Brush Tool

INTRODUCTION TO COLOR CORRECTION

Color Spaces & Color Modes, The Variations Command, The Auto Commands, Adjusting Levels

USING QUICK MASK MODE

Quick Mask Options, Painting a Selection, Saving & Removing a Selection from the Background

WORKING WITH THE PEN TOOL

Understanding Paths & the Pen Tool, Creating Straight & Curved Paths, Creating a Clipping Path

CREATING SPECIAL EFFECTS

Getting Started with Photoshop Filters, Smart Filters, Creating Text Effects

EXPORTING YOUR WORK

Saving with Different File Formats, Saving for Web & Devices, Printing Options, Credits

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