Certificate Course in Computer Animation (CCCA)

Paper No.	Course Code	Title of the Course	University Examination	Total	Credits
	CCCA-01	Fundamentals of animation and basic sketching	100	100	4
	CCCA-02	2D Digital Animation: Flash	100	100	4
	CCCA-03	Graphic Design(Adobe Illustrator, Corel DRAW and Adobe Photoshop)	100	100	8
	CCCA-04	Lab based on CCCA-02 and CCCA-03	100	100	8
		Total	400	400	24

SYLLABUS

FUNDAMENTALS OF ANIMATION AND BASIC SKETCHING
Course Code: CCCA-01
Unit I
What is animation, History of animation, concept of animation and persistence of vision, Introduction to Experimental animation, Orientation into visual art form, Orientation into performing art form, Relevance of message and medium and a relationship,

Unit II
The Basics of traditional 2D animation, Intro to the skill required the animators, Learning to draw lines, circles, ovals, scribbles, jig jag (random) patterns etc. Beginning life drawing, use of simple shapes. How to draw drawings with the help of basic shapes

Unit III
An intro on how to make drawings for animation, shapes and forms, About 2D and 3D drawings, Life drawing, Caricaturing-fundamentals, Exaggeration, Silhouette.

Unit IV
Background elements, trees, mountains, clouds, water bodies, meadows, buildings, science fiction storybackgrounds, backgrounds of mythological stories perspective drawing
Lights and shadows day night scenes,

UNIT V
Perspective drawing Lights and shadows day night scenes, Concept of layers, Back ground, stage, foreground elements, Layout designs,

Recommended Books:
1. Experimental animation: An illustrated anthology Robert russett and Cecile Starr.
2. The Everything Drawing Book: From Basic Shapes To People and Animals by Helen south

References:
1. Visual art: a critical introduction by James Morton Carpenter (Harcourt Brace Jovanovichpublishers)
2. Making Clay Animation by Nancy Smith, Melinda Kolk.
3. Clay Modeling by Sally Henry (Rosen Publishing Group)
4. Optical Illusion Flip-Book: Astounding Optical Illusions by GylesBrandreth, Katherine Joyce(sterling publisher)

2D DIGITAL ANIMATION: FLASH
Course Code: CCCA-02
Unit I
Flash workflow & Workspace, Intro to flash, Workspace overview, Customize the workshop
Using the stage and tools panel, About the timeline, Using Flash panels, Property inspector
Library panel, Movie explorer, History panel, Color panel, Working with Flash documents: About flash files, Create or open a document and set its properties, View a document when multiple documents are open. Working with project, importing art work into flash (working with PSD files-PSD file import preferences)"

Unit II
Adding media to library, Work with libraries and its items, working with timeline, working with scenes, Find and replace command, about templates, Drawing Basics: About vector and bitmap graphics, Flash drawing module, about overlapping shapes, Using flash drawing and painting tools: Draw with pencil tools, draw straight lines, Reshaping lines and shape outlines, snapping (object snapping, pixel snapping and snap alignment, working with color, strokes and fills.

Unit III
Working with graphic objects: Selection objects, moving, copying and deleting objects, Arranging objects (Stack, Align, group, Break apart groups and objects) and Transforming object, Using symbols, instances and library assets: Symbols overview, Types of symbols, Create symbols, Convent animation on the stage into a movie clip, Duplicate symbols, Edit symbols, working with symbol instances.

Unit IV
Creating animation: Animation basics, creating motion, creating key frames, Representations of animation in the timeline, Frame rates, Frame by frame animation, Onion skinning, Extend still images, Mask layers.

Unit V
USING timeline effects, Twinned Animation, Special effects, Filter: Animation filters, Create preset filter libraries, Blend modes in Flash, Working with text, working with Sound, Working with video.

Recommended Books:
1. Adobe Flash Professional CS5 Classroom in a Book (Author: Adobe Creative Team) Adobe Press.

References:
1. Flash character animation: applied studio techniques By Lee Purcell (Sams publishing).
2. Adobe Flash Catalyst CS5 Classroom in a Book (Author: Adobe Creative Team).
3. Flash + after effects by Chris Jackson (Focal press publication).

GRAPHICS DESIGN (ADOBE ILLUSTRATOR, CORELDRAW AND ADOBE PHOTOSHOP)

Course Code: CCCA-03

Unit I.

Introduction to Adobe Illustrator, work area andworkspaces and tools. Opening files, importing art work, viewing art work, rulers and grids, Drawingin Illustrator, drawing lines and shapes, pencil tool, pen tool, editing drawing, tracing, symbols,colouring, applying colours, swatches, adjusting colour and colour settings, Painting with Illustrator, fills, strokes, brushes, transparency, blending, gradient, meshes and colourblending.

Unit II

Getting Started with Corel Draw X4,Explore the Corel Draw X4 Interface, Customize the Workspace,Differentiate Between Raster and Vector Graphics, importing art work, Set Up a Drawing Page, DrawShapes, Draw Lines, Bezier, Curves, Shape Tool, Include Objects

Unit III

Working with Fills, Pattern, differentiates between RGB and CMYK color and color settings. Workingwith text tool, Point Text and Paragraph text, Add Text to Objects, Fit Text on a Path, Work withParagraph Text, Wrap Paragraph text, Work with a Text Style, Insert Special Characters, Spell Check aDocuments Create a Table, Modify a Table, Format a Table, Group and ungroup object, MaskingObjects.

Unit IV

Photoshop and its interface, Navigation and All tools, Working with basic selections, advanced selections-1(on the basis of channels, color range, extract, filter etc), Exercises on selections, QuickMasks, Layer Mask, Vector Mask, Layers & Layer Blending Modes.Play with Photoshop filters-martFilters, Filter Gallery, exercises, Bring some object and try to make it in computer, Make your owncartoon character.

Unit V

Color Theory, Make a perfect cropping of some images using Photoshop, Prepare a cutout of someimages using Photoshop, Place nice background for those images, Prepare nice background usinggradient tool, Scan various images, Color adjustment of those images (PHOTO RETOUCHING), Make Nature scene (winter) digital painting, Make Nature scene (summer) digital painting.Makedigital painting (Use brush, pencil, smudge etc), Make something like modern art keeping in mindcolor combination, Make a collage of Indian art and culture.Make a collage of wildlife animals, Makea portrait of celebrity (Digital painting)

Recommended Books:
1. Adobe Illustrator CS5 Bible by Steve Johnson.
2. Coral DrawX4 The Official Guide Gary David Boutan
3. Adobe Photoshop CS5 Classroom in a Book (Author: Adobe Creative Team) Adobe Press.

References:
1. Teach Yourself Visually - Adobe Photoshop CS5 by Mike Wooldridge (Wiley publishing).
2. Adobe Photoshop CS5 Bible by steve Johnson.
3. Adobe Photoshop CS5 Bible by Lisa Danae Dayley& Brad Dayley.
4. Adobe Illustrator CS5 Bible by Ted Alspach
5. Straight to the point Coral DrawX4 Dinesh Maidanani
6. Coral DrawX4 in simple steps- Kogen solution

LAB BASED ON PAPERS CCCA-02 AND CCCA-03
Course Code: CCCA-04

Graphic Design and Flash

- Draw a 5 basic object using the basic shapes.
- Create a business card for graphic design company using the shapes and text.
- Create a magazine cover page.
- Create a CD front and back cover design for a music company.
- Draw simple line object with the help of shape tools in Adobe Illustrator.
- Create a scene of jungle with lines, shapes and object and pen tool.
- Apply colour and gradient to above scene.
- Import a drawing, trace it and apply colour filter and effect and export to various image formats.
- Some advertisement for products, posters of social importance.
- Design a logo, brochure, covering letter, visiting cards.
- Prepare a cutout of some images using Photoshop.
- Place nice background for those images.
- Prepare nice background using gradient tool.
- Design Ad, movie poster.
- Photo retouching
- Squash and Stretch, Anticipation, Staging, Straight ahead and pose to pose
- Follow through and overlapping action,
- slow in and slow out, Arcs, Secondary action, Timing, Exaggeration, Solid drawing, Appeal, Mass and weight, Character acting, Volume.
- Walk cycles of Biped (human), Walk cycles of Quadruped (animal)