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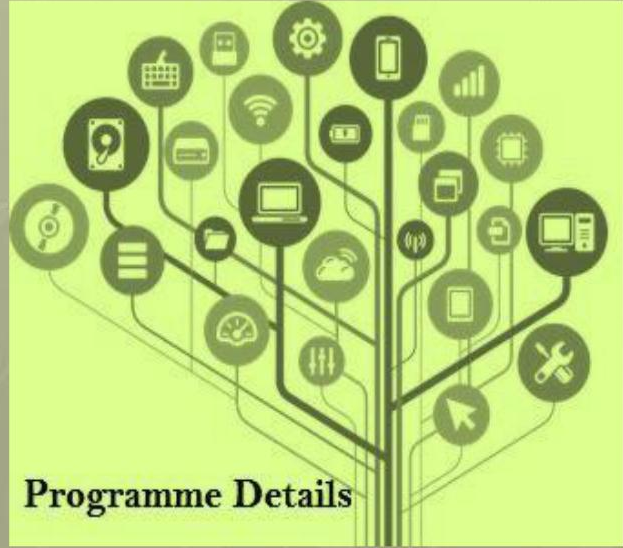


# University of Mysore

(Estd.1916)

## POSTGRADUATE DIPLOMA IN MULTIMEDIA TECHNOLOGY

Choice Based  
Credit System  
(CBCS)



**UNIVERSITY OF MYSORE**  
**Centre for Information Science and Technology**  
**Manasagangotri, Mysuru-570006**

**Regulations and Syllabus**  
**POSTGRADUATE DIPLOMA IN MULTIMEDIA**  
**TECHNOLOGY (PGDMT)**

**Under**  
**Choice Based Credit System (CBCS)**

  
**CHAIRMAN**  
**BOS OF CIST COURSES**  
**UNIVERSITY OF MYSORE**  
**MGM - 6**

**UNIVERSITY OF MYSORE**  
**GUIDELINES AND REGULATIONS**  
**LEADING TO**  
**POSTGRADUATE DIPLOMA IN MULTIMEDIA TECHNOLOGY**  
**(PGDMT)**

**Programme Details**

Name of the Department	: Centre for Information Science and Technology
Subject	: Multimedia Technology
Faculty	: Science and Technology
Name of the Programme	: Postgraduate Diploma in Multimedia Technology
Duration of the Programme	: 1 year

**Programme objectives**

The main objective of this Multimedia programme is to provide a strong foundation in Multimedia subjects like PG Diploma is to get an employment/career opportunity to a student in the following areas.

Entertainment

Director  
UNIT director  
Assistant Director  
Casting director  
Production Manager  
Director of Photography  
Video Editor  
Photo editor  
Director of autography  
Script supervisor  
Photographer  
Box office manager etc.

Advertising

Creative Director  
Advertising Directors  
Advertising Producers  
Senior Production Artists  
Art Director



Advertising Account Director  
Chief Editors  
Advertising Account Manager  
Advertising Copywriter  
Marketing & Promotional Manager

Publishing

Publisher  
Editor in chief  
Managing director  
Visual Production specialist  
News editor  
Sub editor  
Photo editor  
Copy editor etc.

Digital media

Email Marketing Manager  
Lead Management  
Blogger  
Marketing Technologist  
Events Coordinator  
Content Strategist  
Organic Social Media Manager  
Face book Ads Specialist

**J** Gaming:

Junior programmer  
Tool programmer  
Coders  
Tester etc

**K** Motion graphics and more.

Motion graphics designer  
Junior motion graphic designer etc.

**Programme Outcomes**

The students will:

1. Have a thorough knowledge and understanding of the field of multimedia, which makes the candidate able to produce all types of video production that constitutes a complete multimedia product.
2. Have basic knowledge of multimedia technology, design, programming, web, dissemination, photography and video.
3. Have knowledge of technology and communication, interpersonal communication, and communication media as method of expression and communication in society
4. Have basic knowledge of graphics design, layout and art of the world.
5. Have knowledge of relevant methods in the Graphic Designing and Animation industry.
6. Be familiar with the challenges in multimedia, as well as working methods in the field of multimedia.

7. Be able to independently update their knowledge.

## SKILLS

Graduates or Diploma holders from Multimedia Technology and Design will have the skills necessary to create interactive and functional multimedia products of high quality both technically and content wise.

On successful completion of the study programme, the students will:

- Be able to create multimedia content in 2 and 3 dimensions.
- Have skills to modelling, Animation.
- Have skills to master in basic sound- and video technology.
- Be able to use both still- and video camera and associated editing software for multimedia productions.
- Be able to program 2- and 3- dimensional graphics.
- Have skills to develop internet-services and web applications with an efficient interactive design.
- Skills to make graphic compositions, which disseminate a message efficiently.

## GENERAL COMPETENCE

- 1) The candidate can identify, plan and implement multimedia projects, assignments, tests and experiments, both independently and in teams.
- 2) The Students will be able to work independently and in teams, and to disseminate problems and solutions orally and in writing in technical as well as in more general contexts.

## Pedagogies Employed in Multimedia Technology Programmes

The general idea involves engaging students in challenging, useful ideas that emphasize student-teacher relationships, multiple knowledge sources, the value of bridge theory and practices, and the importance of collaborative learning. The classroom environment actively engages both students and teachers in positive interactive positions that utilize experience as a source of knowledge importance, explicitly presenting the knowledge to human life, and recognizing the overall participation of the learning process for both student and teacher.

Program Results Ability to design and integrate various elements of multimedia such as text, graphics, audio, video and animation using multimedia software.

Production and program in multimedia give students the skills they need in multimedia technology and design to master a wide range of new media. The program provides the technical knowledge needed to create multimedia content for the Web, video and cellular phones, 2D and 3D graphics, sound and programming. The program ends with a project that includes full multimedia production.



## Structure of Programme Syllabus (One year Course)

### Choice Based Credit System (CBCS)

Course Name: PGDMT (PG Diploma in Multimedia Technology)

#### I Semester

Sl.No.	Paper code	Title of paper	HC/SC	L	T	P	Credits
1	47321	Digital Image editing	HC	2	0	2	4
2	47322	Computer Graphics	HC	2	0	2	4
3	47323	2DGraphics	HC	2	0	2	4
4	47324	3DModeling And Animation	HC	2	0	2	4
5	47325	Production Tool and Techniques	HC	2	0	2	4

#### II Semester

Sl.No.	Paper code	Title of paper	HC/SC	L	T	P	Credits
1	47331	Video Production Tools and Techniques	HC	2	0	2	4
2	47332	Advanced Web Designing Using Html And Dreamweaver	HC	2	0	2	4
3	47333	Advanced Animation: Rigging and Animation	HC	2	0	2	4
4	47334	Visual Effects	HC	2	0	2	4
5	47335	<b>Project</b>	HC	2	0	2	4

### FIRST SEMESTER

#### COURSE-I : DIGITAL IMAGE EDITING

#### COURSE OUTCOME

After completing the course, the students will able to:

- Get a thorough knowledge about the introduction to color modes
- Understand the concept of digital image modifications
- Learn about tools and techniques to modify digital images
- Do different kinds of editing techniques using Adobe Photoshop

#### COURSE CONTENT.

#### UNIT-I Introduction of Photoshop

Creating a New File, Main Selections, Picking color, Filling a selection with color, More ways to choose colors and fill selections, Painting with paintbrush tool, Using the magic wand tool and applying a filter, Saving your document Color Mode,

GrayScale Color Mode, RGB Color Mode, CMYK Color Mode, Bitmap Mode, Open a file, Preference

## UNIT-II

Foreground & background, Changing Foreground and Background colors, Using the Large color selection Boxes and small color swatches, Using the Eyedropper tool to sample Image color, Changing the Foreground Color While using a Painting Tool. Using Brushes, Selecting the Brush Shape, Drawing a vertical and Horizontal Straight line with any brush, Drawing connecting Straight Lines ( at any angle) with any brush, Creating a New Brush, Saving Brushes, Loading Brushes, Creating a Custom Brushes, Using the Painting Modes, Fade, Airbrush Options, Pencil Options

## UNIT-III

Rubber stamping an Aligned Clone, Rubber Stamping, Impressionist Style, Using line tool, Using the Editing Tool, The Smudge Tool, The Blur and Sharpen Tool, The Dodge / Burn Tool, Shadows, Midtones and Highlights, Selection Tools, Making Rectangular and Square Selections, Feathering a Selections, Lasso Features, Lasso Options, Making selections by color or Gray Scale value using the Magic Wand, Moving an anchor point or Direction point to change the shape of curve, Adding and Removing Anchor points, Moving Path, Saving, Loading and Creating New Path, Filling & Stroking Path

## UNIT-IV

Introduction of layers, Creating & editing New layers, Adding a background, Creating Layer Mask, Layer Masks, Adjustment Layers, Adding Fills and Gradients, Filling with paint bucket tools, Filling type with grading Fills, Applying Filters, Blur Filters, Render Filters, Sharpen Filters, Sketch Filters, Texture Filters, Other Special Filters, Printing your document, Save your file, Save file as a JPEG, TIFF, GIF, PNG

### Selected Readings:

- Clapper, E. O. (2000). *U.S. Patent No. 6,023,241*. Washington, DC: U.S. Patent and Trademark Office.
- Gee, Z. (Ed.). (2013). *3D in Photoshop: the ultimate guide for creative professionals*. Taylor & Francis.
- Gee, Z. (Ed.). (2013). *3D in Photoshop: the ultimate guide for creative professionals*. Taylor & Francis.
- Greenberg, A. D., & Greenberg, S. (2001). *Photoshop 6: The complete reference*. McGraw-Hill Professional.
- Mukherjee, D. P. (1998). *Fundamentals of computer graphics and multimedia*. PHI Learning Pvt. Ltd..
- Peck, D. D. (1997). *Multimedia; A Hands on introduction*. International Thomson Publishing.
- Practical's based on Digital Image Editing**
- Qingsong, L. (2012). The application of multimedia technology in web education. *Physics Procedia*, 33, 1553-1557.

Steinmetz, R., & Nahrstedt, K. (2013). *Multimedia systems*. Springer Science & Business Media.

**Software: Adobe Photoshop**

1. Simple text effects
2. Image restoration
3. Image manipulation in Photoshop
4. Movie poster concept
5. Creating storyboard
6. Digital scenery creation
7. UI Design for smartphones
8. Creating a website layout
<input type="checkbox"/> Set extension in Photoshop
<input type="checkbox"/> Digital Matte painting

**COURSE-II : COMPUTER GRAPHICS**

**COURSE OUTCOME**

After completing the course, the students will able to:

- Use CorelDraw related tools and applications
- Creation of digital 2D graphics using CorelDraw tools
- Design brochures using coral draw, PhotoDraw etc
- Produce powerful business graphics

**COURSE CONTENT:**

**UNIT-I**

**Introducing CorelDRAW:** Introducing CorelDRAW, Vector Graphics & Bitmaps, The CorelDraw Screen, Docker Windows, Changing Magnification Levels, Viewing Modes, Undoing Mistakes, Changing Program Defaults. Creating a New Document, Saving a File, Opening an Existing File, Importing a File, Exporting a File, Switching Between Open Documents, Closing a File. Setting Up the Project, Setting Page Layout, Setting Page Size & Orientation, Inserting Additional Pages, Renaming Pages, Setting the Page Background, Setting Global Page Options, Creating a Customized Page Type.

**UNIT-II**

**Drawing and Modifying Shapes:** Drawing & Modifying Rectangles, Drawing & Modifying Ellipses, Drawing Polygons, Stars, Grids & Spirals, Drawing Other Basic Shapes, The Smart Drawing Tool, The Shape Tool, The Smudge Brush, The Roughen Brush, The Knife Tool, The Eraser Tool, The Free Transform Tool, The Virtual Segment Delete Tool, The Freehand Tool, The Bezier Tool, The Artistic Media Tool, The Pen Tool, The Polyline Tool, The 3 Point Curve Tool, The Connector Tool, The Dimension Tool, The Interactive Blend Tool, The Interactive Contour Tool, The Interactive Distortion Tool, The Interactive Drop Shadow



Tool, The Interactive Envelope Tool, The Interactive Extrude Tool, The Interactive Transparency Tool, The Interactive Mesh Tool.

### UNIT-III

Manipulating Objects, About Selections, Selection Modes, Selecting Objects, Moving Objects, Resizing Objects, Copying Objects, Deleting Objects, Rotating & Skewing Objects, Mirroring Objects. Arranging Objects, Changing the Stacking Order, Aligning Objects, Distributing Objects, Grouping Objects, Combining Objects, Shaping Objects, Positioning Objects.

Changing Object Attributes, Editing Lines, Arrows, & Object Borders, Applying a Uniform Color Fill, Applying a Gradient Fill, Applying a Pattern Fill, Applying a Texture Fill, Applying a PostScript Fill, Applying a Mesh Fill, Copying Object Attributes, The Eyedropper & Paint bucket, Applying No Fill.

### UNIT-IV

Working With Text, Creating Artistic Text, Creating Paragraph Text, Formatting Text, Aligning Text, Editing Individual Characters, Creating Outline Text, Setting Spacing Parameters, Setting Tabs, Setting Indents, Creating Columns, Using Bullets, Using Drop Caps, Importing Text, Using the Writing Tools, Changing the Default Fonts, Using Text to Path.

**Colour Management** Tools, Colour Models & Colour spaces, Preset Colour Palettes, Custom Colour Palettes, The Colour Viewer, The Uniform Fill Dialog Box.

**Using Layers**, About Layers, Layer Visibility, Editing Layers, Renaming Layers, Reordering Layers.

**Applying Effects:** Introduction Power of Blends, Distortion Contour Effects, Envelopes Lens effects Transparency Creating Depth Effects Power Clips, Creating Pictures for the Web, Printing.

#### Selected Readings:

Bain, S. (2004). *CorelDRAW 12: the official guide*. Dreamtech Press.

Bouton, G. D. (2011). *CorelDRAW X5 the official guide*. Tata McGraw-Hill Education.

Jain, S., & Geetha, M. (2018). *Corel Draw training guide*. BPB Publications.

#### Practical's based on Computer Graphics

**Software: Corel Draw**

Symbols, Icons in Corel draw
Business Card
Logo/Identity design
Brochure designing
Pamphlet designing
Hotel menu card designing
Calendar designing
Product packaging design
Creating graphs for business presentation
Info-graphics

## **COURSE-III : 2D ANIMATION**

### **COURSE OUTCOME**

After completing the course, the students will able to:

- Get a better understanding of Flash interface
- Differentiate between Vector and Raster graphics
- Add interactivity to web page using Action Script
- Understanding techniques to add animation to a 2D graphics

### **COURSE CONTENT:**

#### **UNIT- 1**

Introducing the Flash Interface, Adding Elements to the Stage, Duplicating Library Items, Introducing Keyframes, the Transform Tool & Tweening Creating Animations, Adding Audio, Swapping Symbols & Testing a Movie Using Graphic Symbols, Combining Animations into One Project, Creating & Arranging Buttons, Adding & Labeling Action Keyframes, Adding Behaviors to Buttons, Using the Publish Preview Command.

**Flash Fundamentals:** Navigating the Stage Area, Accessing, & Organizing Panels Saving, Exporting & Testing Selecting a Flash Player Version for a New Project, Introducing Layers, Creating New Layers & Moving Items Between Layers, Customizing Keyboard Shortcuts & Locking Layers, Using Outline Mode, Layer Folders & Properties.

#### **UNIT- 2 Drawing with Vectors**

Comparing Vectors & Bitmaps, Working with the Pen Tool, Drawing a Heart Shape with the Pen Tool, Where to Put Points & How Far to Drag Handles Practicing Your Vector Drawing Skills, Flash Natural Drawing Tools Setting Up the Drawing Preferences. Exploring the Pencil Tool Options, Using the Line & Paint Bucket Tools Distinguishing Between Strokes & Fills. Modifying Vectors Using the Selection Tool, Snapping & Modifying Curves with the Selection Tool, Altering Drawings with the Selection options, Using the Brush & Paint Bucket Tools to Fill Painting Using the Various Brush Modes. Working with a Stylus & a Tablet. Drawing with the Rectangle Tool, Drawing with the Oval Tool, Drawing with the PolyStar Tool, Working with the Eye Dropper Tool, Working with the Ink Bottle Tool, Working with the Eraser Tool.

#### **UNIT- 3 Advanced Vector Drawing**

Intersecting Shapes within a Single Layer, Using the Selection Tool, Creating Complex Shapes with Intersecting Lines, Combining Tools to Create Detailed Curves, Vector Drawing Techniques, Grouping Vector Shapes, Creating & Arranging Groups Object-Based Drawing, Setting Colors in Flash. Introducing Advanced Color Selection, Working with the Color Mixer, Creating Transparency & Sampling Colors, Using the Color Swatches Palette, Applying & Stylizing Strokes Adjusting Cap, Join Other Stroke Properties, Applying & Transforming Gradients, Saving & Locking Gradients, Choosing a Gradient Overflow, Adding Transparency to a Gradient. **Shape Tweening, Motion Tweening**

#### **UNIT- 4**

#### **Bitmaps in Flash**



Importing Files to the Stage & Library File Compression Settings, Size Report & Use Count  
Compressing Individual Files, Importing an Image with a Transparent Background, Using  
Trace Bitmap to Change a Background to Vectors, Changing a Foreground Item to Vectors,  
Using the Optimize Curves Command, Grouping an Image & Using the Transform Tools  
Performing Transformations Numerically, Working with the Free Transform Options.  
Working with Bitmap Fills inside a Vector Shape. Using the Break Apart Command & the  
Magic Wand Tool.

**Introduction to the Timeline** Introducing Frame-Based Animation, The Timeline Window,  
Understanding Keyframes, Animating Your Elements Using Keyframes, Practicing Your  
Animation Techniques, Using Onion Skin View, Facial Animation, Replacement Animation,  
Rotoscoping. **Using Text in Flash** Auto-Sizing, Auto-Wrapping, & Selecting Text Changing  
a Font, Picking a Color, Checking Spelling Using Rulers, Guides, Grids, & Snapping  
Aligning, Distributing & Spacing Text Working with Device Fonts Editing Files with  
Missing Fonts, Anti-Aliasing Text for Better Quality & Readability, Paragraph & Character  
Formatting Using Text as a Design Element. Text on a Path, Guide Layers & the Transform  
Panel Symbol. Introducing Symbols, Creating & Reusing a Symbol Editing a Symbol in  
Place. Editing a Symbol in the Library, Modifying an Instance of a Symbol, Nesting  
Elements inside a Symbol, Adjusting the Color & Opacity of a Symbol. Deconstructing &  
Reordering Symbol Parts Taking Advantage of Logically Ordered Layers, Organizing the  
Library, Looking at Symbols as a Movie inside of a Movie.

## UNIT- 5

Advanced Animation Techniques, Simulating Speed in your Animations, Animated Masks  
and Filters, Sound and Video, Flash Buttons

**Scripting Basics:** Setting Up to Use Action Script, Introducing the Actions Window, &  
Script Assist, Creating Buttons to Activate Action Script, Labeling Buttons in the Properties  
Window, Assigning Play

1. Stop Actions to Buttons, Organizing & Arranging Buttons Using the Behaviors Window to  
Stop All Sounds, Using the Goto and Play Behavior, Modifying a Behavior & Adding an  
Action Layer. Duplicating & Modifying Sequences in the Timeline Using Advanced Go to  
Behavior.

### Selected Readings:

- Harris, A. (2011). *Beginning flash game programming for dummies*. John Wiley &  
Sons.  
Mohler, J. L. (2000). *Flash 5: Graphics, animation, and interactivity*. Cengage  
Learning.  
Robbins, J. N. (2012). *Learning web design: A beginner's guide to HTML, CSS,  
JavaScript, and web graphics*. " O'Reilly Media, Inc."  
Rose, K. W. (1982). *Development of an Interactive Computer Graphics System Library  
and Graphics Tools* (No. AFIT/GE/EE/82D-58). AIR FORCE INST OF TECH  
WRIGHT-PATTERSON AFB OH SCHOOL OF ENGINEERING.  
Sahlin, D. (2002). *Flash MX ActionScript for designers*. John Wiley & Sons, Inc..

### Practical's based on 2D Animation

Software: Adobe Flash



1.	Bouncing ball
2.	Walk cycle
3.	Creating buttons
4.	Text animation
5.	Creating Image gallery
6.	Web banner animation
7.	Creating web advertisements
3	Creating snow
4	Creating Fire animation

## **COURSE-IV : 3D MODELING AND ANIMATION**

### **COURSE OUTCOME**

After completing the course, the students will able to:

- Introduction to 3D modeling using 3D Max
- understanding about the interface of 3D Max software
- understanding techniques of designing 3D models.
- Learn to add texture to 3D models.
- Understanding techniques of animation to 3D models.

### **COURSE CONTENT:**

#### **UNIT 1: 3D MODELLING**

Introduction to various 3D modeling, working with symmetry, Editing components in orthographic view, editing components in perspective view, Poly editing techniques- Extruding, Bridging, Adding polygon to mesh, Split polygon faces, edge loops, Mirror copying a mesh, Creasing and hardening edges on mesh, Sculpt a polygon mesh Poly Normal, Edge & bevel, Separating & combining geometry, NURBS, sub-D's.

#### **UNIT 2: 3D MODELLING TECHNIQUES**

Using 2D reference sketches to model, Image Planes, Sculpting, Retopology and poly modeling workflow, Polygon primitives, Modelling in shaded mode, Model symmetry, Drawing a polygon, Quads, Tris and nGons, Low Poly/High Poly modeling, Exporting the models from scene to scene for facilitating faster production flow

#### **UNIT 3: TEXTURING**

Introduction to texturing, Unfolding/Unwrapping UV mesh, Smoothing and relaxing a mesh interactively, Fixing problem areas, Applying textures, Introduction to Maya Hypershade, Texturing, Materials, Normal mapping, Baking maps.

#### **UNIT-IV ANIMATION**

Introduction to Walks with Personality, Locomotion, Body mechanic- Weight and balance, Techniques behind Planning and blocking methods, Understanding Hips, In-depth look of

principles of animation, Splining and Polishing methods, Phrasing or bets in a shot, Force and forms, Animating Physicality workflow.

### **Selected Readings:**

Autodesk Getting Stat with Maya 2015 URL: docs.autodesk.com/mayaul/ 2015/enu/getting started

Geber, E. (1996). New forms of multimedia expression in exploring the Lost Maya Cd-Rom. *Archives and Museum Informatics*, 10(3), 280-288.

Patmore, C. (2003). *The complete animation course: the principles, practice and techniques of successful animation*. Barrons Educational Series Incorporated.

Watkins, A. (2012). *Getting Started in 3D with Maya: Create a Project from Start to Finish—Model, Texture, Rig, Animate, and Render in Maya*. CRC Press.

Watkins, A. (2012). *Getting Started in 3D with Maya: Create a Project from Start to Finish—Model, Texture, Rig, Animate, and Render in Maya*. CRC Press.

Wood, A. (2015). Getting to Know Software: A Study of Autodesk Maya. In *Software, Animation and the Moving Image: What's in the Box?* (pp. 12-59). Palgrave Pivot, London.

### **Practical's based on 3D Modeling and Animation Software: Autodesk Maya**

1. Apple
2. Strawberry
3. Coca-Cola Can
4. Treasure box
5. Space Ship
6. Temple
7. Human Body Modeling-Planning
8. Human Body Modeling- Blocking
9. Human Body Modeling- Finishing
10. Human Body Modeling- Polishing

### **COURSE-V : AUDIO PRODUCTION TOOLS AND TECHNIQUES**

#### **COURSE OUTCOME**

After completing the course, the students will able to:

- Understand the workflow and roles in film sound production
- Understand the principles of editing and enhancing film sound
- Understand the workflow and roles in live sound environments
- Identify the different stages of film sound production
- Recognize the different roles and responsibilities in film sound departments

#### **COURSE CONTENT:**

##### **UNIT 1**



Introduction to sound, Sound, Digital sound files, different sound formats, midi & digital audio, creating digital audio files, sound-producing, sound extracting, Advantages and disadvantages of midi & digital, choosing between midi and digital audio.

## UNIT II

Linking files, Sound for the World Wide Web, adding the sound to your multimedia project, production tips, audio recording, keeping track of your sound, testing and evaluation.

## UNIT III

Record clips & editing, Sound recording, editing the digital recording, trimming, splicing and assembly, volume adjustments, format conversion, resampling or downloading, fade-ins and fade-outs, equalization, time-stretching, digital signal processing, reverting sound, making midi audio, audio file formats.

## UNIT IV

Special effects, Adding effect automation enveloping, adding a volume envelop, adding a panning envelop, previewing effect automation, applying effect automation, adjusting envelope, adding envelop points, flipping envelope points, setting fade properties, cutting, copying, pasting, envelope points, adding mirror and wave hammer, pan to left, pan to right, dry out, wet out, convert mono to stereo, looping.

## UNIT V

Finalize files Burning the audio Cd, mp3, making the remix soundtrack with using all the special FX from the software, Folly studio, Exporting the files in diff formats, save in wav, mp3 etc.

### Selected Readings:

- Atkins, I. K. (1983). *Source music in motion pictures*. Fairleigh Dickinson University Press.
- Bernstein, C. (2000). *Film music and everything else!: music, creativity and culture as seen by a Hollywood film composer*. Turnstyle Music.
- Savage, S. (2011). *The art of digital audio recording: A practical guide for home and studio*. Oxford University Press.
- Self, D. (2010). *Small signal audio design*. Taylor & Francis.

### Practical's based on Digital Audio and Sound Recording

#### Software: Adobe Audition

1. Film Track Analysis
2. Noise Reducing
3. Creating Moods With Effects (Narration)
4. Foley Lab
5. Pitch Correction
6. Create Sound Collage
7. Recording And Editing Digital

8. Aural Response And Concept
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9. Experiments On Psyc
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10. Lip Synchronization
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## SECOND SEMESTER

### COURSE-I : VIDEO PRODUCTION TOOLS AND TECHNIQUES

#### COURSE OUTCOME

After completing the course, the students will able to:

- Create and Configure a project independently
- Match and mix audio with the Sequence
- Create a Story using Images
- Write a video to DVD

#### COURSE CONTENT:

##### UNIT- I

Creating and configuring a project, Importing files and creating bins, Organizing and sorting, Setting in and out points, Creating subclips, Restoring offline clips, Creating and organizing sequences, Dragging clips to the timeline Trimming and rearranging in the timeline, Inserting and rearranging in the timeline, Ripple trimming in the timeline, 3-point insert edits, Understanding images sizes, Modifying fixed effects in the Effect Controls panel, Modifying fixed effects in the Program Monitor, Using the Scale to Frame Size command

##### UNIT- II

Using graphics with alpha channels, Nesting a Photoshop sequence, Reducing image flicker, Creating and modifying titles, Creating title objects, Copying titles, Exporting titles and creating templates, Rolling titles, Adding transitions, Modifying transitions, Adding single-sided transitions, Sepia Photograph effect, Bloom effect, Alpha channel effects, Slow motion and hold frame effects, Picture in picture, Animating fixed effects in the Effects Controls, Animating video effects in the Effects Controls, 3-D motion and light reflection

##### UNIT- III

Animated lens flares, Keyframe interpolation, Applying auto effects, Using the Fast Color Corrector, Using the Three-Way Color Corrector, Changing audio gain, Applying an EQ audio effect, Applying a reverb effect, Modifying clip volume, Animating clip volume, Adding audio transitions, Looping music with audio units, Animating track volume, Recording with a microphone, Applying track-based effects, Modifying master track,

Creating auto-play DVDs, Creating main menu markers, Creating scene markers Creating stop markers, Customizing DVD menus, Burning a DVD,

#### UNIT- IV

Exporting to DVD tape, Exporting to a DV movie file, Exporting stills and audio, files, Exporting to a Web movie, Preparing for capture, Capturing video and audio, Logging clips for batch capture, Capturing with Scene Detect, Removing unused media, Creating a trimmed project, Making offline projects, Copying and pasting between Premiere Pro and After Effects, Creating a dynamic link, Integrating with Photoshop, Integrating with Audition, Exporting to Encore DVD

#### Selected Readings:

- Bolante, A. (2003). *Premiere 6.5 for Windows and Macintosh*. Peachpit Press.  
Chominsky, D. (2003). *Premiere 6.5 Fundamentals*. New Riders.  
NIIT (Corporation). (2004). *A Guide to Filmmaking with Software Tools Adobe Premiere and SoundForge*. Prentice-Hall of India.  
Pro, S. A. P. *Premiere Pro CC Digital Classroom*.

#### Practical's based on Video Production Tools and Techniques Software: Adobe Premiere Pro

1. Organization and Sub clipping
2. Create a Story using Images
3. Trimming a given Clip and Restoring
4. Titling and adding effects to Title
5. First Experiment - Marry had a lamp
6. Continuity Editing
7. Montage
8. Video Effects
9. Time Warping
10. Matching and mixing audio with the Sequence

#### COURSE-II : ADVANCED WEB DESIGNING USING HTML AND DREAMWEAVER

#### COURSE OUTCOME

After completing the course, the students will able to:

- Basics of Web and its principles
- Create and Configure a web page using HTML
- Design a website using Dreamweaver independently



## **COURSE CONTENT:**

### **UNIT-I Web Design Principles**

Basic principles involved in developing a web site, Planning process, Five Golden rules of web designing Designing navigation bar, Page design, Home Page Layout, Design Concept.

#### **Basics in Web Design**

Brief History of Internet, What is World Wide Web, Why create a web site, Web Standards, Audience requirement.

### **UNIT-II Introduction to HTML**

What is HTML, HTML Documents, Basic structure of an HTML document, Creating an HTML document, Mark up Tags, Heading-Paragraphs, Line Breaks, HTML Tags.

### **UNIT-III Elements of HTML**

Introduction to elements of HTML, Working with Text, Working with Lists, Tables, and Frames, Working with Hyperlinks, Images and Multimedia, Working with Forms and controls.

#### **Introduction to Cascading Style Sheets**

Concept of CSS 5.2 Creating Style Sheet 5.3 CSS Properties 5.4 CSS Styling(Background, Text Format, Controlling Fonts) 5.5 Working with block elements and objects

### **UNIT-IV Dream Weaver Interface**

choosing a workspace, document window & toolbars, the document window, the launcher, the insert panel & toolsets, the document toolbar, the property inspector, dockable floating panels, using contextual menus, Basics. defining the site, creating and saving documents, inserting images with assets panel, adding text; aligning page elements, modifying page properties, creating links with text and images, adding keyword & description meta tags, preview in the browser, define a secondary browser **Linking**, link with a point to file, linking to new source files, browse for file and link history, anchor links email links, file links, image maps. **Typography**, HTML text formatting, font lists, text alignment, HTML lists, color schemes, text in tables, flash text, character objects **Tables**, insert and modify a table fixed-width tables, relative width tables, hybrid table, insert tabular data, sort table data **Rollovers**, simple rollovers - insert rollover, simple rollover - swap image behavior, multiple-event rollovers, flash buttons.

#### **Selected Readings:**

Ballard, B. D. (2001). *Macromedia Dreamweaver 4 Fast & Easy Web Development*. Premier Press.

Dean, D., Cowitt, A., Finkelstein, E., Sahlin, D., & McCue, C. (2003). *Macromedia Studio MX 2004 All-in-One Desk Reference For Dummies*. John Wiley & Sons.

McFarland, D. S. (2004). *Dreamweaver MX 2004: the missing manual*. " O'Reilly Media, Inc."

Polonsky, K. B., & Lehto, K. A. (1999). *Official Microsoft FrontPage 2000 Book*. Microsoft Press.

**Practical's based on Advanced Web Designing Using Html And Dreamweaver**  
**Software: HTML**

1. Creating web page with texts, paragraph and its attributes.
2. Creating web page with ordered, unordered list. Nested list.
3. Creating web page with tables. Nested Tables,
4. Creating web page with Image, Hyperlink, image map
5. Creating web page with marquee tags
6. Using Dreamweaver Creating web page with texts, paragraph and its attributes.
7. Using Dreamweaver Creating web page with ordered, unordered list. Nested list
8. Using Dreamweaver Creating web page with tables. Nested Tables,
9. Using Dreamweaver. Creating web page with Image, Hyperlink, image map
10. Using Dreamweaver creating CSS

**COURSE-III ADVANCED ANIMATION: RIGGING AND ANIMATION**

**COURSE OUTCOME**

After completing the course, the students will able to:

- Understand digital animation and digital effects to 3D scene
- Creation of 3D animations by adding different kinds human physical actions
- Understanding Techniques of Rendering and get the final output.

**COURSE CONTENT:**

**UNIT-I**

Introduction to animation, Heritage of Animation, Dawn of Digital Animation, Digital effects of 3D Animation, Rotoscope to Motion Capture, Becoming an Animator, Becoming an Actor, Becoming a Storyteller, Becoming a Creative Practitioner, Applications of Animation- Entertainment, Advertisement, Education, Medical Practise and Engineering.

**UNIT-II**

Basic Principles in animation, 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, Line of action, Path of action, Walk cycles-animal and human.

**UNIT-III Tools of Animation**

The use of Live Action in Animation Humans and Animals-Quick Studies from real life, Sequential movement drawing, Caricaturing the Action, Thumbnails, Drama and psychological effect, Motion Studies, Drawing for motion, The Body language, Facial

expressions, and Lip sync, Introduction to traditional and digital equipment- The animator's drawing tools, The animation table (lightbox, Field charts, Exercises and warm-ups on pegging sheet, Line tests, The exposure sheet ("X" sheet)

#### UNIT-IV 3D Animation Pipeline

Preproduction- Idea, Story, R&D, Script to a screenplay, Storyboards. Production-Layout, 3D Model, Texturing(Surfacing), Rigging/setup, Animation, 3D Visual effects, Lighting and Rendering and Post-production – Colour Correction, Audio Video Editing, Final Output.

#### Selected Readings:

- Canemaker, J. (1982). *Treasures of Disney animation art*. Artabras.
- Goldberg, E. (2008). *Character Animation Crash Course!*. Silman-James Press.
- Laybourne, K., Canemaker, J., & Griffin, G. (1998). *The animation book: a complete guide to animated filmmaking--from flip-books to sound cartoons to 3-D animation*. New York: Three Rivers Press.
- Patmore, C. (2003). *The complete animation course: the principles, practice and techniques of successful animation*. Barrons Educational Series Incorporated.
- Thomas, F., Johnston, O., & Thomas, F. (1995). *The illusion of life: Disney animation* (pp. 306-312). New York: Hyperion.
- Whitaker, H., & Halas, J. (2013). *Timing for animation*. CRC Press.
- White, T. (1988). *The animator's workbook*. Watson-Guption Publications.
- Williams, R. (2012). *The animator's survival kit: a manual of methods, principles and formulas for classical, computer, games, stop motion and internet animators*. Macmillan.

#### Practical's based on Advanced Animation: Rigging And Animation

##### Software: Autodesk Maya

1.	Bouncing Ball
2.	Vanilla walk cycle
3.	Jump Cycle
4.	Run Cycle
5.	Weight Lifting
6.	Weight Lifting
7.	Weight Lifting
8.	Character Rigging- Body
9.	Character Rigging- Body
10.	Character Rigging- Facial Rigging

#### COURSE-IV: VISUAL EFFECTS

#### COURSE OUTCOME

After completing the course, the students will able to:

- Understand special effects and its techniques
- Understand the techniques of chromakey
- Understand the concept of Rotoscopy and its techniques
- Produce a film or advertisement with special effects

## **COURSE CONTENT:**

### **UNIT-I Introduction to Adobe After Effects**

Introduction, User interface, Creating and using compositions, timeline, Looping animation, Editing motion path, Creating the arrivals Bound Effects, Importing Footage and Editing, Data Management, Key-framing and Tweening, Workflow, Exporting and File Formats, Masks, Layer Modes, Basic Effects, Special effect Techniques.

### **UNIT-II**

Compositions, Importing project assets, Adding layers to timeline, Adding text layer, Setting keyframes, Previewing Animations, Motion Paths, and Interpolation, Animating and moving anchor points, Effect and presets, Creating and moving shape layer, advance effects, Motion blur, Parenting, Precompositions, Adding Precomp to main compositions Non-destructive Workflow, Time stretching and remapping.

### **UNIT-III**

Introduction to Rotoscopy and Techniques, Drawing mask using pen tool, Editing Mask, Complex shape masking, Rotoscopy for color correction, Transferring Mask, Animating Mask, Controlling edge and opacity of Mask, Keyframe data, Complex rotoscope techniques, integrating rotoscope footage with background plate, Chroma key, Controlling spills using depill Bias and screen replace

### **UNIT-IV**

3D Layers, Masks, Null objects, Controlling camera with null object, Graph editor, Tracking in after effects, One point tracking, Two-point tracking, Four-point tracking, Video stabilization, Adding length to compositions, Color correction, Audio in after effects, Rendering in After effects, Introduction to 3rd Party effects/simulations.

### **Selected Readings:**

- Brinkmann, R. (2008). *The art and science of digital compositing: Techniques for visual effects, animation and motion graphics*. Morgan Kaufmann.
- Foster, J. (2014). *The green screen handbook: real-world production techniques*. CRC Press.
- Mattingly, D. B. (2011). *The digital matte painting handbook*. John Wiley & Sons.
- Zwerman, S., & Okun, J. A. (Eds.). (2020). *The VES handbook of visual effects: industry standard VFX practices and procedures*. Routledge.

### **Practical's based on Visual Effects**

#### **Software: Adobe After Effects**

1.	Deinterlace video and color correction
2.	Camera shake
3.	Color Keying
4.	Basic Sky replacement
5.	Gun blow effects



6.	Video title animation/Motion graphics
7.	Rotoscopy
8.	3D Camera tracking
9.	Burning match stick animation
10.	Compositing 3D object to live background environments

**COURSE-V : PROJECT**

**COURSE OUTCOME**

After completing the course, the students will able to:

- **A project with Project Report**



1	Enter the minimum/maximum grades
2	Minimum
3	Maximum
4	Learning and other activities
5	Enter the ID object of the book, name and number

**COURSE: FINANCIAL**

**COURSE OBJECTIVE**

After completing the course, the student will able to  
 • Analyze and interpret financial reports