



DCMP

WITH SPECIALISATION IN
ANIMATION AND VISUAL EFFECTS

DCMP

[DOEACC Certified Multimedia Professional]

With Specialisation
In
Animation and Visual Effects

Course Syllabus

Course Description

DCMP with specialisation in Animation and Visual Effects provides learners with an opportunity to gain valuable and specialised design, technical and software knowledge, sophisticated skills and practical experience in the field of 2D & 3D Animation and Visual Effects. The learning focus is on advancing theoretical knowledge and practical skills to produce qualified learners with appropriate knowledge and skills that will enable them to choose from a range of career options in the field.

Career Options

- ❑ Animation Artist
- ❑ Composer
- ❑ Cinematographer
- ❑ Special Effects Artist
- ❑ Production Designer

Eligibility

The eligibility for learning this course is a graduation in any discipline. Under graduate students can also join the course, if they have an artistic talent and aptitude towards graphic designing and multimedia.

An entrance exam can be conducted for the students in order to test the aptitude and basic skills in art and design.

Course Objectives

The course aims at developing expertise in the field of 3D Animation and Visual effects

Upon Completion of the course, the students will be able to:

- Create 2D & 3D Professional artworks and Techniques with Macromedia Flash and 3DS Max
- Create interactive contents and character animation using Macromedia Flash
- Create 3D Modeling & Character Animation using 3DS Max
- Gain a basic knowledge of post-production techniques, various methods of compositing, and keying techniques.
- Create special effects for still images, video and animations.

Course Content, Examination and Evaluation

The course comprises of two foundation and two specialisation modules. Each module has duration of 60hr for theory and 60hr for practical sessions. There will be assignments after each subject, and a final project, upon completion of the subjects.

Altogether, there will be 5 exams (2Theory, 3 Practicals) and a Course Viva .

Theory: First theory exam will be a combination of the subjects DCMP1 & DCMP2 and the Second theory exam will be a combination of subjects DCMP5 & DCMP6. The maximum mark for each theory paper is 100.

Practical and Viva: The first paractical exam is from the the two foundation subjects DCMP1 & DCMP2 , the second practical exam is from the specialisation subject , DCMP5 and the third practical is from the specialisation subject, DCMP6. There will be viva along with the practicals. This can also cover topics from the final project. Thus each practical carries a total maximum mark of 100 ie 80 for practical and 20 for viva.

The evaluation will be in Grade, depending on the performance of students in the theory and practical exams.

To qualify for a pass in practical exam, a candidate must have obtained at least 50% marks in the practical examination (D Grade).

To qualify for a pass in the course, a candidate must have obtained at least 55% marks aggregate in the theory and practical exam combined (C Grade)

Subjects		Soft wares	Code	Practical	Theory
Foundation	Fundamentals And Typography	Adobe InDesign	DCMP1	1	1
	Graphic Designing	Adobe Illustrator AdobePhotoshop	DCMP2		
Specialisation	2D Animation and Video Editing	Macromedia Flash Adobe Premiere	DCMP5	1	1
	3D Modeling, Animation and special effects	3D studio Max Discete Combustion	DCMP6	1	

		Marks
Theory	1	100
	2	100
Practical + viva	1	100
	2	100
	3	100
Total		500

Grades	
S	85% and above
A	75% to 84%
B	65% to 74 %
C	55% to 64%
D	50% to 54%
F	49% and below

References

Text Books

1. Photoshop CS2 Bible by Laurie Ulrich Fuller and Deke McClelland
Author Sanford Kennedy Publisher Charles River Media
2. Illustrator CS2 Bible by Ted Alspach and Brian Underdahl
3. 3ds Max 8 Bible by Kelly L. Murdock
4. Macromedia Flash MX 2004 Bible by Robert Reinhardt and Snow Dowd
5. The Focal Easy Guide to Combustion 4: For New Users and Professionals
by Gary M Davis

CDs

1. Discreet combustion Tutorial – by VTC
2. Autodesk 3ds max 8 (11.5-Hour Training CD) –by VTC
3. Adobe Premiere Pro Tutorial – by VTC
4. Macromedia Flash Training CD – by VTC

Websites

1. www.webdevelopersnotes.com/tutorials/adflash/special_effects_in_flash.php3
2. www.huntfor.com/3d/tutorials.htm
3. www.docnmail.com/learn/combustion
4. www.computer-training-software.com/photoshop-cs.htm

Infrastructure Required

For an institute for a batch of Ten students:

	Item	Item	Quantity
H/W	1	Processor – Pentium 4 2.6 GHz or AMD Athlon, RAM – 512 M, Hard disk – 80GB, Floppy disk – 1.44MB 3.5", Monitor – 15" LCD monitor (or CRT monitor), Mouse (Optical)	5 each
	2	Printer – Inkjet or laser	1
	3	DVD Burner	1
	4	Modem – 56K or ADSL or cable modem, or any other means of Internet connection	1
S/W	5	Operating system – Windows XP (XP Pro is recommended)	5–licences
	6	Adobe InDesign	5–licences
	7	Adobe Illustrator	5–licences
	8	Adobe Photoshop	5–licences
	9	Macromedia Flash MX	5–licences
	10	Adobe Premiere	5–licences
	11	3D Studio Max	5–licences
	12	Discrete Combustion	5–licences
	13	Anti-virus package	5–licences

Module 1: Fundamentals And Typography (Foundation)

Theory	60hrs
Practical	60 hrs
Max. Marks	100

Subject Code: DCMP 1

1 Computer Fundamentals (25hrs)

1 Introduction to Computer

CPU Motherboard Hard Disk, Floppy Drive, CD Drive, Memory, Monitor, Display Card , Keyboard, Mouse, Cables and Connectors

2 Operating Systems

Introduction DOS Commands, Microsoft Windows, Software Tools

3 Introduction to computer networks

Network Topologies, Network Card, Network Operating System, Server/Workstation, Hub

4 Introduction to Multimedia

What is Multimedia? - Definition- Multimedia file formats-Multimedia Soft wares- Soft wares for-Page setting, illustrations, Photo editing, Sound and Video editing, compositing, special effects, Web designing and Animation-Multimedia Hardware Devices- Sound Card, Speakers/Mike, MPEG Encoder, MPEG Decoder, Scanner, Digital Camera, TV/VCR/VGA to PAL Converter, Cables and Connectors like (BNC, RCA, EP etc.)-Multimedia Applications

5 Principles of Design and composition

Elements of design - White space, Focus, Balance, Page Layout, Pictures, Fonts, Style and Substance, Developing Your Own Skills- making a good Composition-Color theory- Color harmony, Color modes-Art as a Profession -Principles, What Your Client Needs, Presentation, Production, Printing, Legal Issues and Copyrights- Story board- Steps of Storyboard creation

2 Typography and Documentation using Adobe InDesign (35hrs)

Introduction

Introduction to the interface–Overview of the toolbox –Document setup–Specifying page attributes–Setting margins and columns–Adjusting document setup–Setting preferences–Using ruler guides–Moving the zero point–Using x and y references–Locking a point in the proxy box–Showing hidden characters Creating text frames–Resizing, repositioning & rotating

Text Frames

Using the transform palette–Specifying frame options–Text frame properties –Frame alignment options–Fitting content to a frame–Changing a frames content–Locking and unlocking–Grouping and ungrouping–Magnification and views–Placing text files–Linking and unlinking text frames.

Introduction to typography

Typeface, style and size–Leading and spacing–Formatting paragraphs–Setting rules, drop caps

Using text

Setting tabs and leaders–Checking spelling–Using find and change–Adjusting character attributes–Creating Outlines–Find and Replace Font–Type on a path

Styles

Applying style sheets–Modifying style sheets–Locally formatting a style

Working with Images

Importing graphics–Images formats–Resizing graphics–Link to files –Editing and updating original files–Compound Paths–Alpha channels

Document

Combining text and graphics–Setting a text wrap–Duplicating object–Using arrangement options–Master pages–Creating master pages–Applying master pages–Modifying master pages–Inserting page numbering–Working with colour

Using the colour palette–Colour application–Stroke and fill options–Swatches palette–Specifying a pantone colour–Spot and process colour–Customising the swatches palette–Gradient palette–Using the gradient tool–Creating graduated blends–Adding and deleting colours

Output & Workspace

Tiling windows–Setting margins and columns–Saving InDesign files–Printing InDesign files.

Assignments:

1. Creating a storyboard with a given theme.
2. Creating a formatted textual documentation with the given theme.

Module 2: Graphic Designing (Foundation)

Theory	60hrs
Practical	60hrs
Max.marks	100

Subject Code: DCMP 2

1 Introduction to Graphics (2hrs)

Types of Graphics– Vector Vs Raster Graphics– Pixels and Resolution–Color Modes– RGB, CMYK, LAB, Bitmap, and Gray scale

2 Introduction to Vector Graphics and illustrations with Adobe Illustrator (20hrs)

Getting started

Illustrator environment and Work area–Page setup–Viewing the document and working in artwork or preview modes–Grids, guides, and other features to help you accurately position objects–Adding and using guidelines – locking and unlocking, positioning accurately–Getting information about the document and contents – Keyboard Shortcuts: For zooming in and out, Duplicating & selecting, Turning palettes on & off, etc.

Selection Tools & drawing tools

Drawing and modifying basic shapes–Using the pen and pencil tools to create paths–Adjusting path segments–Combining, Dividing and Grouping Paths–Path transformations– Using and Editing Spline Curves–Using Beziér Curves– Compound Path–Applying Stroke and Fill colours– Filling Paths –Using the knife & scissors tools to slice a path or an object into two–Using paintbrushes.

Using Colour

Picking RGB, CMYK & Pantone colours–Using the paint bucket & the eyedropper –Gradients and blends, gradient mesh–Saving and modifying colours for later use

Working with Text

Typing directly onto the page and importing text from a text file–Creating columns of text–Setting text attributes (font, colour, size, kerning, etc.)–Copying text attribute from other text–Wrapping text around objects or flowing along a path– Paragraph and character styles–Glyphs–Open type–Tabs–Composition methods

Working With Images

Placing photographs and other artwork into Illustrator–Choosing whether to link or embed image files–Creating borders around images–Using an illustrator path to mask an an area of an image–Tracing the outlines of a photograph or bitmap image–modifying image colours

Working with Layers

Creating layers – setting layer properties–Viewing, hiding and locking layers
Moving objects between layers

Symbols

Symbol introduction– Using Symbol Tools Creating custom symbols–Accessing Symbol Libraries–Manipulating and Duplicating Symbols–Altering All Instances of a Symbol–Replacing All Instances of a Symbol –Saving default symbols

Graphs

Creating graphs–Changing the graph type–Coloring graphs–Styling type
Column designs–Value divisions–Design markers–Other line graphs

Object Transforms and Alignment

Moving, aligning, & grouping objects–Scaling, rotating and transforming and distorting objects–Applying envelope transformations

Filters Effects and Masking

Using filters – Vector and bitmap filters– 3D effects and visualising
Opacity masks–Clipping masks– Graphic styles and the appearance palette

Pathfinder options

An Introduction to the Pathfinder Operations–Working with the Pathfinder Palette

Exporting and Printing artwork

Exporting artwork for Photoshop or for a DTP program–Tools & Palettes– Using the Info Palette & the Transform Palette to maintain accuracy–Marks and bleeds–Crop marks–Printing gradients, mesh objects and blends–Tiling artwork–Transparency and flattening options–Setting output / separation options–Annotating objects

Advanced Options

Producing colour separations Including–Separating artwork–Calibrating your monitor–Trapping –Reusing elements and Automating tasks–Designing artwork for the web–Pixel preview–Slicing artwork–Creating image maps

3 Introduction to Image Editing with Adobe Photoshop

(38hrs)

Basics

Basic Photoshop concepts–Paint versus Draw–Ways of acquiring images
 Overview of Photoshop tools–Document options–Background and foreground colours–How text works in Photoshop–Selection & Masks–Use of layer masks in montage–Modifying masks–Rectangular and elliptical marquees–Using the lasso tool–How the magic wand works–Defining a feather edge–Defining an anti-aliased edge–Subtracting and adding–Essential keyboard image–navigation–Moving and exporting a selection–Saving and reloading a selection
 Transforming and editing

Image navigation

Power shortcuts in navigating the image–Importance of pixel view

Cutting out / isolating areas of an image

Using navigation techniques to facilitate cutouts–Edges softening and smoothing–Offsetting problems created by softening

Tools & Layers

Brushes and brush types–Erasing and canvas colour–How text works in Photoshop–The advantages of using layering–Transforming and distorting
Layer blending modes

Layer masks

Advantages of use / importance of isolating image areas–Masks from selections–Masks made using freehand techniques
Combining the two Floating selections to make masks across the layer stack
Useful things to know about the wand and marquee tools

Adjustment layers

Advantages of use in retaining image quality–Use in conjunction with masks
Common darkroom techniques applied through layer masks–Using the histogram–Using levels to ensure correct tonal range–Common colour correction problems–Changing the feel of an image through colour correction–Effects of image saturation

Image Preparation & Re-touching

Layer masks adjustment layers–Advantages of adjustment layers–Colour correction techniques–Using levels–Colorizing greyscale images–Achieving subtlety when retouching–Removing unwanted detail–Correcting a damaged image

Combining Images

Creating montages–Saving feathered borders–The gradient tool and selection
Working with multiple layers–Overlaying images–Ways of combining images
Creating layer masks

Working With Paths

Creating and saving paths–Adding and deleting points–Converting selection to paths–Exporting paths to Quark

Filters As Tools

Introduction to Photoshop Filters–Tips on using filters–Blurring and sharpening –Synthesising texture–Preparing video grabs

Importing and Exporting Files

Creating common file types–Setting transparency–Images for print–Images for the web–Examination of file types–Advantages of various formats–Converting the image type–Overview of scanner types–Scan–time resolutions–Output resolutions–Using scanner controls

Photoshop advanced

Advanced selection–Alpha channels and masks–Using the alpha channel palette–Creating a complex cutout using the alpha channels as a mask–Precise control of image edges after feathering/ mask blurring–Using colour range and layer modes to make a complex selection involving hair–Making a complex mask using filters and image duplication

Image quality–Digital image limitations–The importance of bit depth in image manipulation–Effects of bit depth on the image histogram–Common bit depths and what they mean–Maintaining image Quality with Smart Objects–Using Smart Objects –Transforming and resizing Smart Objects–Saving Smart Objects as a separate file

Tonal manipulation–Using curves – the ‘s’ curve – what it does and how it can be used–Modifying the ‘s’ curve–Using curves with the image histogram instead of levels–The reasons behind difficult colour balance problems and some solutions

Black and white from colour–Appreciating the issues in changing to monochrome–Differences between conversion methods–Using the channel mixer

Colour management–The need for colour management–Configuring default working colour spaces–Choosing an image profile–Generic cmyk – does it really exist–Monitor calibration–Printing to a desktop printer using colour management–Sending work out using colour management–Soft proofing–Effect of ‘intent’ on conversion between colour profiles.

Hardware requirements to run Photoshop efficiently–Configuring memory and scratchpad
Automated actions–Creating an action–Editing an action–Running a batch command

Assignments:

- 1 Creating a vector illustration of a character.
- 2 Designing an Ad banner with a Logo
3. Retouching and restoring an old photograph.

Module 3: 2D Animation & Video Editing (Specialisation)

Theory	60hrs
Practical	60hrs
Max.marks	100

Subject Code: DCMP 5

1 Introduction to 2D Animation With Macromedia Flash (40hrs)

Introduction to Flash

The Flash Interface–Flash and HTML–How Flash movies work – streaming and vectors–Finding your way around Flash MX–What Flash can and can't do

Flash basics

Setting Movie properties–Using Vector–based paint and draw tools–Creating & editing shapes and working with shapes and elements–Grouping elements–Using panels and shortcuts for efficiency.

Creating vector graphics

Lines and brush strokes–Drawing lines, rectangles and ovals–Smoothing /straightening lines and curves–Using grids and rules–Aligning objects–Using gradients and fills–Creating and editing custom colours and fills–Using colours to create 3d and light effects

Text

Creating and editing text–Breaking apart and reshaping text–Adjusting–weighting, font, style and alignment–Transformations–Rotating, skewing, scaling and flipping–Free Transform

Layers and Keyframes

Locking layers and colour coding layers–Using Mask and masked layers
Understanding frames and keyframes

Creating simple animations

Using the Timeline Frames and keyframes–Using the onion skin and outline colours mode–Frame by frame animations

More animation features

Creating tweened animations–Shape and motion tweening–Creating animations along a path

Symbols and Instances

Working with symbols–Creating and editing symbols–Assigning properties to instances–Using the Edit symbol Commands–Applying transparency to colours and gradients

Importing Images/Jpegs

Interactivity

Explaining actions and event–handlers–Types of actions–Adding actions to buttons and keyframes–Giving control to the user–Nesting symbols–Creating animated buttons–Making interactive links to other scenes and URLs

Sound

Importing sound–Adding sound to a scene and adding sound to buttons
Synchronising sound–Streaming audio with MP3 compression

Management

Using the library to organise elements–Using the Movie Explorer to keep track of elements

Testing and Publishing

Using the bandwidth profiler–Streaming and streamlining your movie–Using the Publish command–Inserting a preloader.

Introduction to ActionScript

Understanding Object Oriented Programming–When to Use ActionScript
Introducing the Actions Panel–Working in Normal Mode–Working in Expert Mode–Using the Reference Panel–Understanding ActionScript Syntax

Creating ActionScript Movies

About Flash Symbol Types–Adding an Action to Your Script–Adding an Action to a Key frame–Adding an Action to an Object–Adding an Action to a Button–Planning Your ActionScript Movie–Dissecting an ActionScript

Controlling the Timeline with ActionScript

Starting and Stopping the Movie–Navigating to Frames and Scenes–Creating an Interactive Animation–Navigating to URLs–Opening a URL in a Different Browser Window

Controlling Movie Content with ActionScript

Creating Presentations–Working with Flash Levels–Using the LoadMovie and UnloadMovie Action

Creating ActionScript Loops

About Loops–Looping Between Frames–Creating a For Loop–Creating a While Loop–Creating a Do While Loop

Working with Variables and Arrays

About Variables and Arrays–Understanding Variable Data Types–Variable and Array Naming Conventions–Declaring a Variable–Creating an Array–Working with Arrays–Getting Data From an Array

Modifying an Object with ActionScript

Creating a Movie Clip–Creating Movie Clip Instances–Using the Set Property Action–Changing an Object's Properties–Getting an Object's Properties

Using ActionScript with Text

Creating Input Text Blocks–Creating Dynamic Text Blocks–Loading Text From an External Document–Creating Rich Formatted Text–

Flash UI Components

Macromedia Flash UI Components–PushButton Component–CheckBox Component–RadioButton Component–MessageBox Component–ComboBox Component –ListBox Component–Linking a ComboBox with a ListBox–Creating a Master–Detail View–Scrollbars Component–Changing the Look and Feel of Components

2 Introduction to Video editing with Adobe Premiere (20hrs)

Essentials of Video Editing

Different video standards–Capturing and importing footage–Roughcuts –Trimming footage–
Transitions–Compositing–Exporting for broadcast–Exporting for web

Introducing the Premiere Interface

The project window–The monitor Window–The timeline

Video Settings

Timebase and frame rate–Compression–Project settings versus export settings

Tools

Block selection–Moving, razoring and inserting clips–Timestretching

Audio Editing

Using the audio rubber band–Basic audio filters

Transitions

Simple fades using the rubber band–A/B versus single track editing–Standard transitions–
Gradient wipes

Working with Still Images

Photoshop and Illustrator files

Filters

Applying filters to a clip–An overview of useful filters–Using Photoshop filters with Premiere

Keyframes

What are keyframes?–Animating a filter–Animating motion

Basic Compositing

Introducing alpha channels–The transparency settings window– Working with blue– and greenscreens

Assignments:

- 1 Designing an interactive interface with Flash
2. Editing and Compositing Multiple videos and Audio to create a single movie.

Module 4: 3D Modeling Animation and Special Effects (Specialisation)

Theory	60hrs
Practical	60hrs
Max.marks	100

Subject Code: DCMP 6

1 3D Modeling and Animation With 3DS Max (40hrs)

Overview

An introduction to creating 3d space–Concept of Depth and Dimension–User Interface–view ports of 3DS MAX–Concept of the Perspective view–Difference between Perspective and User views–Command Panels–Menus–Toolbars–Timeline–View port navigational Tools–customizing the view port and Workspace–Working with Files and Objects–the file format of 3DS MAX–Import and export file formats–Selecting and Transforming Objects –moving–rotating and Scaling using keyboard entry and with mouse–Cloning geometry–clone types, array and snapshot commands–Aligning objects–to maximum, minimum,centre–Align to Normal–Align to veiw–Organizing objects into Layers–Layer Manager– Rendering options

Modeling

Primitive modeling with–Geometry and Shapes–Creating and editing Splines–Modeling with Modifiers–object modifiers–introducing the Modifier stack–Bringing 2d shapes into 3d–Spline Modifiers–Extrude, Bevel, Bevel Profile, Lathe, Loft –deforming loft objects–creating and refining loft objects using deforms–text and graphics–2d/3d graphics–Compound Objects–Sub object level Modelling– Mesh Editing–creating models by editing the –character creation – Editable Poly–low poly models and multi resolution output–nurbs–creating nurbs curves and surfaces–patch surfaces –forming and welding together to create a model–smoothing–applying smoothing to model surfaces

Materials and mapping

Introduction to the Material Editor –creating and applying the most commonly used materials–material libraries–creating and organising material libraries–Material Types–specialised materials–raytracing, refraction and multi sub object– Intoduction to Maps–2D and 3D maps–Creating Mapped Materials–Different Shaders–Using material Channels

Scene Creation

Lights –applying light, using attenuation and decay to create realistic environments– volumetric lighting–Advanced lighting effects with Light tracer and Radiosity– Camera –Perspective –

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 Rendering– setting 3d models into 2d backgrounds

Effects and video post composition

Camera Effects–lens effects, depth of field–video post–combining still graphics, animation, video and text into one–compositing preparation–integrating max scenes with other discreet compositing e.g. combustion

Dynamics

Particle Dynamics–Introduction to Particle system–applying Deflectors and fields to Particles–Reactor–creating simulations using Soft bodies, Rigid bodies, Cloth–Rope–Water.

Animation

fundamentals of animation, controlling position, scale, speed–animated Booleans
 Basic Animation Techniques and Animation modifiers–Graph editors–Track View–Dropsheet–Animation constraints–Controllers–morphing–using template meshes and morph modifiers for facial animation and lip sync

Character animation

Introduction–Overview of the character development process: design, modeling, rigging, animating–Importance of drawing and understanding anatomy–Character animation principals from the 2D world (squash, stretch, anticipation, exaggeration)

Everything is based on the intended audience, budget, output device(s), team.

Modeling and Texturing Issues for Characters–Box modeling in Edit Mesh–Box modeling in Edit Poly mode–Subdivision Surfaces–Introduction to Patch modeling (Surface Tools)–Modeling issues specific to characters–Level Of Detail and Multi Resolution Meshes–Edge Loops–Modeling with Textures (Subdivision Surface Displacement in the Material Editor)–Other Texturing issues: Texture size and detail; UVW mapping issues; Unwrap UVW

Non–bone–based Rigging– Applying modifiers to deform the mesh (whole mesh vs. selection sets)–Manipulators and wiring issues–Secondary animation effects (bounce, jiggle using the Flex modifier)–Animating with Splines and the Linked–Xform modifier–Rigging with other animation controllers (eye–rigging with the Look–At Constraint–Introduction to Morphing – the Morpher modifier

Biped basics (Character Studio) –What it does (and doesn't) do–Figure Mode (modifying the skeleton to fit the mesh)–Footstep Mode (Footsteps vs. Freeform modes)–Key frame Mode–

Importing motion capture data–Recycling motion files; layering motions–Motion flow mode, stitching motions together

Attaching the model to the Biped–The Physique Modifier (Requires Character Studio)–Overview of what it does–Relationship to bone scaling–Working with envelopes–Vertex assignments–Bulge setup – wiring secondary animation effects

The Skin Modifier (Character Studio not required) –Differences from Physique–Display options–Painting Weights–Built-in Deformer Gizmos

Rigging with Bones– need for bones–Advantages and Disadvantages–Review Hierarchies and how they work–Forward Kinematics (FK) vs. Inverse Kinematics (IK), Uses–Setting Up a Bone chain (scaling, fins)–Setting constraints–IK Solvers; Helper Objects with IK–Setting Up a leg

Animating the Character–Biped–Key framing in Footstep Mode–Key framing in Free Form Mode–Bone Rigs–Key framing and function curves

2 Introduction to Compositing and Special effects with Combustion (20hrs)

Introduction

About Compositing–Blue Screen and Green Screen technologies

The combustion Interface

The Toolbar–The Workspace–The Viewport–The Controls–2D/3D Workspaces–Resolution & Time

Operators

Composite Operator–Paint Operator–Text Operator–Particle Operator–Edit Operator

Importing Footage

Importing Footage–Importing Image Sequences–Importing Illustrator/Photoshop–Replacing Footage

Selection Tools

Selection Tools–Adding & Subtracting Selections–Moving/Scaling/Rotating Selections–Cropping & Hinging–Grouping

Painting

Paint Tools–Editing Vector Paths–Painting Shadows–Adding Blurs–Custom Brushes–TV & Film Safe Zones

Surface Properties

Transfer Modes–Opacity

Animation

Basic Animation–Understanding Keyframes–Using the Timeline–Animating Surface Properties–Onion Skinning–The Graph–Pivot Point–RAM Preview–Superhero Animation

Audio

Importing Audio–Audio Controls–Linking Audio

Motion Graphics

Motion Graphics Explained–Creating Text–Drop Shadows–Animating Text–Animating Text on a Path

Gradients

Text Gradients & Opacity–Animating Gradients

Masking

Drawing Masks–Feathering Masks–Using Paint Object Masks

Parenting & Null Objects

Parenting Objects–Null Objects

Cameras

Camera Options–Animating Cameras

Lights

Lighting–Shadows–Soft Shadows–Reflections–Adding & Animating Lights

Particle Effects

Loading Particle Libraries–Animate Particles–Particle Deflectors–Customize Particles–Particle Properties–Rocket Launch with Particles

Nesting & Commit To Disk

Commit To Disk–Nesting Layers

Compositing & Keying

Intro to Compositing–RPF Export from 3D Applications–The Import Queue–Creating a Simple Composite–Keying–Alpha Channels

Building A Finished Composite

Importing the Footage–Color Correction–Keying–Lens Flare–Particles–Finished Composite

Non-Linear Editing

The Edit Operator–Slip Editing–Split Editing–Transitions–Tracking–Tracking–Stabilization

Color Correction

Color Correction Tools

3D Post

Depth of Field–RPF Motion Blur–3D Fog–3D Glow

Output & Saving Options

Saving the Finished Workspace–Exporting to Flash–Rendering Audio

Assignments

1. Creating a 3D scene with a given theme applying material lighting techniques in 3DS Max

2. Creating an Ad movie, utilizing the Keying and Compositing Techniques.

Final Project:

Suggested Topics

- 1 Creating a 1-minute 3D animation movie with Compositing and special effects
- 2 Creating, a 1-minute 2D animation movie