

Syllabus for Introduction to 3D Modelling&Animation

Name of the Course : MUTIMEDIA TECHNOLOGY	
Name of the Subject: Introduction to 3D Modelling&Animation	
Course Code :	Semester: Fifth
Duration: 15 weeks	Maximum Marks: 100
Teaching Scheme :	Examination Scheme :
Theory :3 contact hours/week.	Internal Examination : 20 Marks
Tutorial : 1 contact hour/week	Class Attendance : 5 Marks
Practical : Workshop	End Semester Examination : 70 Marks
Credit : 3	Teacher's Assessment: 5 Marks
Aim:	
1.	To develop the skill & knowledge in 3D Modelling&Animation.
2.	Students will understand the knowhow and can function either as an entrepreneur or can take up jobs in the multimedia and animation industry, video studios, edit set-up and other sp.effects sectors.
Objectives - The student will be able to	
1.	Define Computer-based Animation&Getting Started with Max
2.	2D Splines, Shapes & compound object
3.	3D Modeling
4.	Keyframe Animation
5.	Simulation & Effects
6.	Lighting & Camera
7.	Texturing with Max
8.	Rendering with V-Ray
Pre-Requisite -	
1.	Basic drawing skill, visual storytelling and concept of moving images should be known.
2.	Knowledge of basic Computer hardware & software is also necessary.
3.	Basic Knowledge of cel& 2D Animation

**CONTACT PERIODS: 60(15 WEEKS), INTERNAL ASSESSMENT: 2 WEEKS,
TOTAL PERIODS: 60**

Content (Name of Topic)		Periods	
Group - A			
Module 1	Computer-based Animation&Getting Started with Max		
	Definition of Computer-based Animation, Basic Types of Animation: Real Time ,Non-real-time, Definition of Modelling, Creation of 3D objects. Exploring the Max Interface, Controlling & Configuring the Viewports, Customizing the Max Interface & Setting Preferences, Working with Files, Importing & Exporting, Selecting Objects & Setting Object Properties, Duplicating Objects, Creating & Editing Standard Primitive & extended Primitives objects, Transforming objects, Pivoting, aligning etc.	8	
Module 2	2D Splines & Shapes& compound object		
	Understanding 2D Splines& shape, Extrude & Bevel 2D object to 3D, Understanding Loft & terrain, Modeling simple	4	

	objects with splines, Understanding morph, scatter, conform, connect compound objects, blobmesh, Boolean ,Proboolean&procutter compound object		
Group -B			
Module3	3DModelling		
	Modeling with Polygons, using the graphite, working with XRefs, Building simple scenes, Building complex scenes with XRefs, using assets tracking, deforming surfaces & using the mesh modifiers, modeling with patches & NURBS	8	
Module 4	Keyframe Animation		
	Creating Keyframes, Auto Keyframes, Move & Scale Keyframe on the timeline, Animating with constraints & simple controllers, animation Modifiers & complex controllers, function curves in the track view, motion mixer etc.	8	
Group - C			
Module 5	Simulation & Effects		
	Bind to Space Warp object, Gravity, wind, displace force object, deflectors, FFD space warp, wave, ripple, bomb, Creating particle system through parray, understanding particle flow user interface, how to particle flow works, hair & fur modifier, cloth & garment maker modifiers etc.	8	
Module 6	Lighting& Camera		
	Configuring & Aiming Cameras, camera motion blur, camera depth of field, camera tracking, using basic lights & lighting Techniques, working with advanced lighting, Light Tracing, Radiosity, video post, mental ray lighting etc.	8	
Group - D			
Module 7	Texturing with Max		
	Using the material editor & the material explorer, creating & applying standard materials, adding material details with maps, creating compound materials & material modifiers, unwrapping UVs & mapping texture, using atmospheric & render effects etc.	8	
Module 8	Rendering with V-Ray		
	V-ray light setup, V-ray rendering settings, HDRI Illumination, Fine-tuning shadows, Final render setting etc.	8	
	Total	60	

EXAMINATION SCHEME

Internal Examination : Marks - 20

Marks on Attendance : 05

Final Examination : Marks - 70

Teacher's Assessment : 05

Group	Module	Objective Questions	Total Marks
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		To be Set	To be Answered	Marks per Question	
A	1,2	6	Any Twenty	1	20×1=20
B	3,4	4			
C	5,6	8			
D	7,8	7			
Group	Module	Subjective Questions			Total Marks
		To be Set	To be Answered	Marks per Question	
A	1,2	2	Any Five Taking At Least One from Each Group	10	5 ×10 =50
B	3,4	2			
C	5,6	2			
D	7,8	2			

Note 1: Teacher's assessment will be based on performance on given assignments & quizzes.

Note 2: Assignments may be given on all the topics covered on the syllabus.

Text Books		
Name of Authors	Title of the Book	Publisher
	3dsmax7 Fundamentals	NewRiders
TedBoardman	3d'sMax5Fundamentals	Techmedia
	Inside3dsmax7	NewRiders
Michelebousquet	Modelrig,Animatewith3d'smax6	Manyworldproductio
Reference Books		
Michael E. Mortenson	3D Modelling, Animation, and Rendering	Createspace
Boris Kulagin	3ds Max 8 from Modelling to Animation	Bpb
Michael G.	3D Modelling and Animation	Igi Publishing
Lance Flavell	Beginning Blender: Open Source 3D Modelling, Animation, and Game Design	Apress

**Syllabus
For
Multimedia Technology-II (Audio & Video)**

Name of the Course : MUTIMEDIA TECHNOLOGY	
Name of the Subject: Multimedia Technology-II (Audio & Video)	
Course Code :	Semester: Fifth
Duration: 15 weeks	Maximum Marks: 100
Teaching Scheme :	Examination Scheme :
Theory :3 contact hours/week.	Internal Examination : 20 Marks
Tutorial : Nil contact hour/week	Class Attendance : 5 Marks
Practical : Multimedia Technology-II Lab	End Semester Examination : 70 Marks
Credit : 3	Teacher's Assessment: 5 Marks
Aim:	
1.	To develop the knowledge & skill in Multimedia Audio & Video Technology
2.	Students will understand the knowhow and can function either as an entrepreneur or can take up jobs in the multimedia,etc.Web site development studio, video studios, post production and edit set-up of film industry.
Objectives - The student will be able to understand	
1.	Sound Processing, Formats & Setting, Sound Files.
2.	Concept of audio compression
3.	Understanding Digital Audio & Editing
4.	Understanding Digital video and its use in multimedia
5.	Basics of Video Compression
6.	Digital Video Production & Post-Production
Pre-Requisite -	
1.	Basicknowledge in sound & videoshould be known
2.	Knowledge of basic Computer hardware & softwareis also necessary.
3.	

**CONTACT PERIODS: 45(15 WEEKS), INTERNAL ASSESSMENT: 2 WEEKS,
TOTAL PERIODS: 45**

Content (Name of Topic)		Periods	
Group - A			
Module 1	Sound Processing		
	Recording Sound for Multimedia Application-Sound Formats and Settings, Monophonic Recording & Stereo Recording, Comparative Analysis of sound file size, Saving Sound Files, File Types-Digital Audio Files & MIDI Files, Dif. File formats.	6	
Module 2	Audio Compression		
	Codecs-Linear, A-law and μ -law, PCM, DPCM, ADPCM, Compression Techniques-Byte Size Sampling, RLL and Huffman Encoding, GSM full rate and Half rate encoding, Psycho-acoustic model, MPEG and MP3 revolution etc.	6	
Group - B			
Module 3	Digital Audio		
	Understanding Digital Data, Digital Audio, The Sound Card-	6	

	Basic composition and Anatomy of a sound card, functions and features of sound card. Employing sounds in Multimedia applications-Content & Ambient sound		
Module 4	AudioEditing		
	The Interface -Introduction to Audio Editing Tool, The Main Screen, The Data Window and its Basics, Standard and Transport Toolbar,Common Edit Operations,Status Format,Advanced Editing and Navigation, Editing Sound Formats, Recording, Applying sound processing functions, Operations available under-File, Edit, Process, Effects and Tools menu. MIDI Fundamentals-Introduction,Comparing MIDI with digital audio, MIDI standards, working with MIDI-setting up, recording and editing of MIDI music files	6	
Group - C			
Module 5	Introducing Digital Video		
	Characteristics of video-Interlacing and progressive scanning, Digital video-sampling, Quantization, Luminance and Chrominance, Colour Models, Colour Depth	6	
Module 6	Video Compression		
	Rational for compression, Compression Basics-Redundancy, Lossy and Lossless compression, Simple Compression Techniques- Truncation,Run Length Encoding,Interpolative, Predictive , Interframe Compression, Transform Coding Techniques, Discrete Cosine Transform.CODECs ,Video compression standards-MPEG1,MPEG2,MPEG4	6	
Group - D			
Module 7	Digital Video Production		
	Video Production for Multimedia-Pre-production, Production & Post - Production, Employing Video in Multimedia Applications-Content Video & Incidental Video, Basics of Video Recording-Video Shooting equipment, Camera, Camera movement, lighting and backgrounds ,shooting tips etc.	6	
Module 8	Digital Video Post-Production		
	Basics of Post Production Concepts-Editing, Mixing, Resizing video, Adding Sp.effects, sound & Animation, Title making, Audio Mixing, making video footage into final video. Adobe Premiere video post- production suite-Projects option, video & Audio setting, Timeline & Assets	6	
	Total	45	

EXAMINATION SCHEME

Internal Examination : Marks - 20

Marks on Attendance : 05

Final Examination : Marks - 70

Teacher's Assessment : 05

Group	Module	Objective Questions			Total Marks
		To be Set	To be Answered	Marks per Question	
A	1,2	6	Any Twenty	1	20×1=20
B	3,4	4			
C	5,6	8			
D	7,8	7			
Group	Module	Subjective Questions			Total Marks
		To be Set	To be Answered	Marks per Question	
A	1,2	2	Any Five Taking At Least One from Each Group	10	5 ×10 =50
B	3,4	2			
C	5,6	2			
D	7,8	2			

Note 1: Teacher's assessment will be based on performance on given assignments & quizzes.

Note 2: Assignments may be given on all the topics covered on the syllabus.

Text Books		
Name of Authors	Title of the Book	Publisher
Jose Lozano	Multimedia – Sound & Video	Prentice Hall,1998
John Villamil-Casanova, Louis Molina	Multimedia – An Introduction	Prentice Hall,1995
Gokul. S	Multimedia Magic	BPB Publication, 1995
Tay Baughan	Multimedia making it work	Tata Mcgraw-H
Reference Books		
Judith Jeffcoate	Multimedia in Practice - Technology & Applications	Prentice Hall,1995
AndressHolzinser	Multimedia Basics	Willey India

Syllabus for Audio Visual Media

Name of the Course : MUTIMEDIA TECHNOLOGY	
Name of the Subject: Audio Visual Media	
Course Code :	Semester: Fifth
Duration: 15 weeks	Maximum Marks: 100
Teaching Scheme :	Examination Scheme :
Theory :3 contact hours/week.	Internal Examination : 20 Marks
Tutorial : Nil contact hour/week	Class Attendance : 5 Marks
Practical : Media Lab	End Semester Examination : 70 Marks
Credit : 3	Teacher's Assessment: 5 Marks
Aim:	
1.	To develop the knowledge & skill in Audio Visual Media
2.	Students will understand the knowhow and can function either as an entrepreneur or can take up jobs in the multimedia,etc.Web site development studio, video studios, post production and edit set-up of film industry.
Objectives - The student will be able to understand	
1.	Introduction to Radio, Radio Broadcasting
2.	Radio Formats & Scripts
3.	Types of Radio Programs
4.	Introduction to Television
5.	Television services
6.	Planning and production of Television program
7.	Post Production
Pre-Requisite -	
1.	Basic knowledge in sound & video should be known
2.	Knowledge of basic Computer hardware & software is also necessary.
3.	

**CONTACT PERIODS: 45(15 WEEKS), INTERNAL ASSESSMENT: 2 WEEKS,
TOTAL PERIODS: 45**

Content (Name of Topic)		Periods	
Group - A			
Module 1	Introduction to Radio		
	Introduction to mass media – nature and characteristics of print media, radio, television, cinema, internet and social media. Radio as a means of Mass Communication; Brief history of Radio from early years to the present stage; Print vs Electronic Media; Studio set-ups and productions; Field reporting.	6	
Module 2	Radio Broadcasting		
	Public vs Private broadcasting systems in India; Radio Broadcasting Systems--MW, SW, FM; Internet Radio, Space Radio, Community Radio.	6	
Group - B			
Module 3	Radio Formats & Scripts		
	Scriptwriting for different formats of Radio, Elements of Radio scripts; Listing, scheduling and traffic management; Importance	3	

	of Audience Surveys.		
Module 4	Types and formats of Radio programs		
	Functions of Radio in the context of Public and Private Broadcasting systems; Types and formats of Radio programs- News, Music, Interviews, Talks, Dramas, Discussions, Off-tube commentary, Features, Documentaries, Jingles, Phone-ins, Roadshows, Radio bridges, Spots, Sponsored programs, Sponsorship and Info-commercials.	6	
Group - C			
Module 5	Introduction to Television		
	Television-a telecommunication media, Story of Indian Television, Audio vs Visual media, Characteristics of Television as a medium-Audio visual medium, Domestic Medium, Live medium, Mass Medium, A Transitory Medium and Expensive Medium	6	
Module 6	Television Services		
	Television and National Development, SITE, INSAT, National Television, Cable Television, Satellite Television, Direct to Home(d2h), Conditional Access system, Educational Television	6	
Group - D			
Module 7	Planning and Production of Television Programs		
	Television-organization structure and functioning, Three stages of program production-Pre-production, Production & Post Production, Essentials required for Productions-Machinery and equipment, Camera, Lights, Microphone, Sound Recorder, Video Recorder and editing machine, Lenses-Normal, Zoom, Telephoto & Wide angle, Lighting principles and terms, standard 3 point lighting-Key light, Fill light & Back light, Key professionals involved in Television Production	6	
Module 8	Post Production		
	Sequence of events involved in Post Production, Methods and Techniques of Editing-Cross Cutting, Action Cutting, Jump Cut, Cut away, Transition Different ways of editing-Film Splicing, Linear and Non-linear, Live editing	6	
	Total	45	

EXAMINATION SCHEME

Internal Examination : Marks - 20

Marks on Attendance : 05

Final Examination : Marks - 70

Teacher's Assessment : 05

Group	Module	Objective Questions			Total Marks
		To be Set	To be Answered	Marks per Question	
A	1,2	6	Any Twenty	1	20×1=20
B	3,4	4			
C	5,6	8			
D	7,8	7			
Group	Module	Subjective Questions			Total Marks
		To be Set	To be Answered	Marks per Question	
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B	3,4	2			
C	5,6	2			
D	7,8	2			

Note 1: Teacher's assessment will be based on performance on given assignments & quizzes.

Note 2: Assignments may be given on all the topics covered on the syllabus.

Text Books		
Name of Authors	Title of the Book	Publisher
D.S. Mehta	Mass Communication and Journalism in India	Allied Publishers Limited
Keval J. Kumar	Mass Communication In India	Jaico Publishing House
Boyd Andrew	Broadcast Journalism	Focal Press
K.M. Shrivastava	News Writing for Radio and T.V	Sterling Publication
Reference Books		
Gerald Millerson	TV Production	Focal Press
Barnard Wilkie	Creating Special Effects for TV and Video	-
Morris, Patrick	Nonlinear Editing :Media Mannel	Focal Press

Syllabus for Multimedia Authoring-I

Name of the Course : MUTIMEDIA TECHNOLOGY	
Name of the Subject: Multimedia Authoring-I	
Course Code :	Semester: Fifth
Duration: 15 weeks	Maximum Marks: 100
Teaching Scheme :	Examination Scheme :
Theory :3 contact hours/week.	Internal Examination : 20 Marks
Tutorial : 1 contact hour/week	Class Attendance : 5 Marks
Practical : Multimedia Authoring-I Lab	End Semester Examination : 70 Marks
Credit : 3	Teacher's Assessment: 5 Marks
Aim:	
1.	To develop the knowledge & skill in Multimedia Authoring
2.	Students will understand the knowhow and can function either as an entrepreneur or can take up jobs in the multimediaauthoring and/or CBT development industry.
Objectives - The student will be able to understand about	
1.	Human computer interaction,
2.	Various document formats
3.	User Interface Design, Visual design and cognitive aspects in multimedia presentations
4.	Multimedia Authoring Tools
5.	Creating scripts, flowcharts, storyboards
6.	Integration of various media in a common authoring platform
7.	Creating standalone applications
Pre-Requisite -	
1.	Basic knowledge in using several digital media formats -image, sound, audio, video
2.	Knowledge of basic Computer hardware & software is also necessary.
3.	Basic knowledge of writing, grammar, comprehension

**CONTACT PERIODS: 60(15 WEEKS), INTERNAL ASSESSMENT: 2 WEEKS,
TOTAL PERIODS: 60**

Content (Name of Topic)		Periods	
Group - A			
Module 1	Understanding human computer interaction and the concept of cognition		
	<ul style="list-style-type: none"> • Discussion on human interaction with computer compared to traditional and parallel digital media; • Understanding the concept of cognition in this context-how an user interacts with the computer and/or the application. 	4	
Module 2	Multimedia document formats and Databases		
	<ul style="list-style-type: none"> • Hypertext, Hypermedia, Object Linking and Embedding, HTML, DHTML, SGML, XML • Hypertext, Hypermedia, Object Linking and Embedding, HTML, DHTML, SGML, XML • Understanding databases Understanding databases 	4	
Group - B			
Module 3	Visual Design and User Interface Design		

	<ul style="list-style-type: none"> • How to organize information • Things to remember when creating graphics/illustrations for a particular project • Understanding themes and templates • Typography-various uses • Understanding Symbols, Signs and Semiotics • Understanding layouts • Different types of layouts • Designing a visual interface • Usability of the interface 	12	
Module 4	Authoring Metaphors		
	<ul style="list-style-type: none"> • Understanding various authoring metaphors • The slideshow metaphor- MS PowerPoint • The timeline metaphor- Adobe Director • The book metaphor- Toolbook 	8	
Group - C			
Module 5	Adobe Director		
	<ul style="list-style-type: none"> • Understanding the timeline • Frames, Keyframes • Sprites • Lingo- the language of Director • Shockwave • Publish for various devices 	12	
Module 6	Sum Total Toolbook		
	<ul style="list-style-type: none"> • Understanding content templates, smartpages, smartstyles • Creating assessments and interactive content • Integrating with powerpoint library 	8	
Group - D			
Module 7	Creating scripts and flowcharts		
	<ul style="list-style-type: none"> • Deciding on the content of the presentation • Understanding target audience/viewer • Understanding audience/client requirement • Basic requirements of a good CBT • How to tell a story? • Basics of Script writing • Creating a flowchart • Retaining viewer interest 	8	
Module 8	Creating storyboards		
	<ul style="list-style-type: none"> • Creating storyboard out of the flowchart • Testing interaction 	4	
	Total	60	

EXAMINATION SCHEME

Internal Examination : Marks - 20

Marks on Attendance : 05

Final Examination : Marks - 70

Teacher's Assessment : 05

Group	Module	Objective Questions			Total Marks
		To be Set	To be Answered	Marks per Question	
A	1,2	6	Any Twenty	1	20×1=20
B	3,4	4			
C	5,6	8			
D	7,8	7			
Group	Module	Subjective Questions			Total Marks
		To be Set	To be Answered	Marks per Question	
A	1,2	2	Any Five Taking At Least One from Each Group	10	5 ×10 =50
B	3,4	2			
C	5,6	2			
D	7,8	2			

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Note 2: Assignments may be given on all the topics covered on the syllabus.

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AndressHolzinser	Multimedia Basics	Willey India
John Villamil-Casanova, Louis Molina	Multimedia – An Introduction	Prentice Hall of India Pvt. Ltd, 1998
Gokul. S	Multimedia Magic	BPB Publication, 1995
Sinclair	Multimedia on the PC	BPB Publication
Norman Desmorais	Multimedia on the PC	McGraw Hill Inc, 199
Reference Books		
Judith Jeffcoate	Multimedia in Practice - Technology & Applications	Prentice Hall, 1995
Linda Tway	Multimedia in Actions	AP Professional, 1995
Douglas E. Wolfgram	Creating Multimedia Presentations	QUE Corporation, 1994
Jessica Keys	The McGraw-Hill Multimedia Handbook	McGraw-Hill Inc., 199
	PC Multimedia – An Introduction to	Francis Botto, 1995

	Authoring Application	
Anil Madaan	Illustrated World of Multimedia	Dreamland Publication, 1999
Ralf Steinmetz & Klara Nahrstedt	Multimedia Computing, Communications and Applications	Prentice Hall PTR, 1995

Syllabus for:3D Modeling & Animation Lab

Name of the Course: Diploma in Multimedia Technology.

Course Code:	Semester:Fifth (All Modules should be completed in 5th semester. Evaluation may be done by continuous assessment process and by External Examiner in end semester)
Duration: Seventeen weeks/Semester	Full Marks:100
Teaching Scheme:	Examination Scheme:
Theory : Nil hrs./week	Continuous Internal Assessment Marks:50
Tutorial : Nil hrs./week	Attendance-10,Lab Notebook-15,Regular Performance-25
Practical: 3hrs./week	ExternalAssessment Marks:50
Credit :3	Sessional -20,On spot Job-20,Viva Voce-10

Aim: To impart practical knowledge in 3D modeling & Animation related with the study of Multimedia Technology.

Objective: Student will able to

Sl. No	
1.	Introduction to 3D Studio Max
2.	2D Splines, Shapes & Compound Objects
3.	3D Modelling
4.	Keyframe Animation
5.	Simulation & Effects,Lighting & Camera, Texturing with Max
6.	Rendering with V-Ray

Pre-Requisite: Nil

Sl.No			
1	Basic drawing skill, visual storytelling and concept of moving images should be known		
2	Knowledge of basic Computer hardware & software is also necessary.		
Contents: Total Periods: 45(15Weeks)+ Internal Assessment (2Weeks) =45(17 Weeks)		Hrs./Unit	Marks
Module : 1	1.0 Introduction to 3D Studio Max. 1.1 Exploring the Max Interface 1.2 Creating & Editing Standard Primitive Objects 1.3 Creating & Editing Extended Primitive Objects 1.4 Working with Files, Importing & Exporting	03 periods	
Module :2	2.0 2D Splines, Shapes & Compound Objects. 2.1 Understanding 2D Splines & Shape 2.2 Convert 2D to 3D object using extrude, bevel, loft, terrain etc. 2.3 Using Morph, Scatter, conform, connect compound objects. 2.4 Using Boolean, Proboolean&Procutter	06 periods	
Module : 3	3.0 3D Modeling 3.1 Modeling with polygon objects 3.2 Building Simple & Complex Scene 3.3 Using Mesh Modifier 3.4 Modeling with patches & NURBS	06 periods	
Module : 4	4.0 Keyframe Animation 4.1Creating keyframes& Auto Key/Set Key 4.2 Animating with simple controllers 4.3 Animation with complex controllers	06 periods	

	4.4Function curves in track view 4.5motion mixer		
Module : 5	5.0 Simulation & Effects 5.1 Bind to space warp objects 5.2 Using Gravity & Wind 5.3 Using FFD, wave, ripple, bomb 5.4 Using Particle System 5.5 Using Particle Flow 5.6 Using Hair & Fur Modifier 5.7 Cloth & Garment Maker	06 periods	
Module : 6	6.0 Lighting & Camera 6.1Configuring & Aiming Cameras 6.2 Using Camera Motion Blur & Depth of Field 6.3 Using Basic lights 6.4 Using Light tracing, radiosity 6.5 Video Post 6.6 Mental Ray Lighting	06 periods	
Module : 7	7.0 Texturing with Max 7.1Using Material Editor 7.2 Create &Aply standard material 7.3 Material Modifier 7.4 unwrapping UVs 7.5 Mapping texture 7.6 Using atmospheric & render effects	06 periods	
Module : 8	8.0 Rendering with V-Ray 8.1 Introduction to Scene 8.2 Preparing the Scene 8.3 Basic Settings for Texturing 8.4 Create & Assign Textures 8.5 Light Setup 8.6 V-Ray Rendering Settings 8.7 Fine-Tuning	06 periods	
Total		45 periods	

Text Books		
Name of Authors	Title of the Book	Publisher
	3dsmax7 Fundamentals	NewRiders
TedBoardman	3d'sMax5Fundamentals	Techmedia
	Inside3dsmax7	NewRiders
Michelebousquet	Modelrig,Animatewith3d'smax6	Manyworldprodu
Reference Books		
Michael E. Mortenson	3D Modeling, Animation, and Rendering	Createspace
Boris Kulagin	3ds Max 8 from Modeling to Animation	Bpb
Michael G.	3D Modeling and Animation	Igi Publishing
Lance Flavell	Beginning Blender: Open Source 3D Modeling, Animation, and Game Design	Apress
SI. No. Question Paper settingtips		
A		
B		

Syllabus for:Multimedia Technology-II(Audio & Video) Lab

Name of the Course: Diploma in Multimedia Technology.

Course Code:	Semester:Fifth (All Modules should be completed in 5th semester. Evaluation may be done by continuous assessment process and by External Examiner in end semester)
Duration: Seventeen weeks/Semester	Full Marks:100
Teaching Scheme:	Examination Scheme:
Theory : Nil hrs./week	Continuous Internal Assessment Marks:50
Tutorial : Nil hrs./week	Attendance-10,Lab Notebook-15,Regular Performance-25
Practical: 3hrs./week	ExternalAssessment Marks:50
Credit :3	Sessional -20,On spot Job-20,Viva Voce-10

Aim: To impart practical knowledge in Multimedia Technology-II (Audio & Video) related with the study of Multimedia Technology.

Objective: Student will able to undertand

Sl. No	
1	Overview of Sound Forge
2	Simple Editing and Navigation
3	Recording a sound.
4	Applying sound processing.
5	Getting acquainted with Adobe Premiere Pro
6	Starting a new project and importing clips
7	capture source video by capture card,Edit the video
8	Title Making andConstructing a Movie

Pre-Requisite: Nil

Sl.No			
1	Knowledge of basic Sound and Video is necessary.		
2	Basic concept of PC Operation and OS should be known.		
Contents: Total Periods: 45(15Weeks)+Internal Assessment(2Weeks) =45(17 Weeks)		Hrs./Unit	Marks
Sound Recording and Editing through Sound Forge			
Module : 1	Overview of Sound Forge: Main screen basics, Data Window, Standard and Transport Toolbar,working with file, importing Audio Files,Extract Audio from CD,working with video files, Import Audio only from Video Files,previewing a file.	03 periods	
Module :2	Simple Editing and Navigation: Common Edit Operations like making selection, copy, cut, clear, trim/crop, paste and mix, undoing, trimming, mixing, status format	03 periods	
Module : 3	Recording a sound: Recording basics-Recording to a new window, selecting an alternate record window, available record time, record meters, record levels, adjusting levels, previewing recording sound, using prepare button. Recording Modes-Automatic Retake, multiple takes, punch-in,changing the start position, Recording Status, Remote	03 periods	

	Recording.		
Module : 4	<p>Applying sound processing: Applying simple processes and effects, applying an effect to the entire sound file, applying effects to stereo files, Functions under :- File Menu-Properties, Summary information, extended summary, preferences. Edit Menu-Crossfade, Replace, Replicate, Data Format, Edit frame rate, Edit tempo. Process menu-DC offset, Fade, Insert silence, Invert/Flip, Mute, Normalize, Pan, Resample, Reverse, Smooth, Time compress/Expand, Volume. Effects Menu-Chorus, Delay/Echo, Distortion, Flange, Noise Gate, Pitch Bend, Envelope, Range, Reverb. Tools Menu-Graphic EQ, Simple Synthesis, Statistics, Spectrum Analysis, Preset Manager</p>	12 periods	
Editing Video with Adobe Premiere Pro			
Module : 5	<p>Getting Started Overview, Project Panel, Time line Panel, Monitor Panel, Audio Mixer Panel, Effect Panel, Effect Control Panel, Tools Panel, History Panel, Info Panel, Event Panel Title Designer, Premiere Pro Menus, Digital Video Definition, Compression, General Settings Video Rendering.</p>	03 periods	
Module : 6	<p>Starting a new project and importing clips To start a new project with general audio and video setting, Importing files, Assemble clips in the construction window, Preview the movie, change the duration of a clip, create a transition, add a third clip and another transition, change the time unit in the construction window, apply a filter to a clip, use the preview command to preview the transition and filter effects, add sound to the movie</p>	06 periods	
Module : 7	<p>Connect and capture source video by capture card Connect the audio and video cable from the Camera or any source device to the inbuilt video capture card, Turn on camera and capture card, set capture options like resolution, size, file type etc., Capture the video.</p>	03 periods	
Module : 8	<p>Edit the video Editing basics, Editing with the source monitor, Timeline editing, Editing with program monitor, Timeline trimming.</p>	03 periods	
Module : 9	<p>Starting a Movie Trimming clips, previewing editing work, inserting transition Starting with blank screen, working with sound tracks, Adding sound effect</p>	03 periods	
Module : 10	<p>Title Making Creating Title, Moving and arranging text and objects, Using templates, Using a title created from a template, Rolling and crawling titles, Transforming and Stylizing objects.</p>	03 periods	
Module : 11	<p>Making Movie Setting the different essential parameters to construct a movie, save file as a premiere project, rendering the project, export</p>	03 periods	

	movie with export movie setting and other options like file type, audio and video settings.		
		Total	45 periods
Text Books:			
Name of Authors	Title of the Book	Edition	Name of the Publishers
Jose Lozano	“Multimedia – Sound & Video”	1998	Prentice Hall
John Villamil-Casanova, Louis Molina	“Multimedia – An Introduction”	1995	Prentice Hall
Gokul. S	“Multimedia Magic”	1995	BPB Publication
Tay Baughan/	Multimedia making it work		Tata Mcgraw-Hill
Judith Jeffcoate	Multimedia in Practice- Technology & Applications	1995	Prentice Hall,
AndressHolzinser	Multimedia Basics,	Vol-I	AndressHolzinser
SI. No.	Question Paper setting tips		
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Syllabus for: Media Production Lab

Name of the Course: Diploma in Multimedia Technology.

Course Code:	Semester: Fifth (All Modules should be completed in 5th semester. Evaluation may be done by continuous assessment process and by External Examiner in end semester)
Duration: Seventeen weeks/Semester	Full Marks:100
Teaching Scheme:	Examination Scheme:
Theory : Nil hrs./week	Continuous Internal Assessment Marks:50
Tutorial : Nil hrs./week	Attendance-10,Lab Notebook-15,Regular Performance-25
Practical: 3 hrs./week	External Assessment Marks:50
Credit :3	Sessional -20,On spot Job-20,Viva Voce-10

Aim: To impart practical knowledge in Audio Visual Media related with the study of Multimedia Technology.

Objective: Student will able to understand

Sl. No	
1	Radio Program Production
2	TV programme production
3	Introduction to different audio and video editing software
4	Production of a short fiction film-Script writing, Shooting, Edit with sound, Review and final correction
5	Getting acquainted with Adobe Premiere Pro
6	Starting a new project and importing clips
7	capture source video by capture card,Edit the video
8	Title Making andConstructing a Movie

Pre-Requisite: Nil

Sl.No			
1	Knowledge of basic Radio and Televisionis necessary.		
2	Basic concept of PC Operation and OS should be known.		
Contents: Total Periods: 45(15Weeks)+ Internal Assessment (2Weeks) =45(17 Weeks)		Hrs./Unit	Marks
Module :1	Radio Program Production: a) Single microphone b) Two microphone(preferably interview-based) c) Production with multiple inputs	09 periods	
Module : 2	TV programme production: a) single camera b) Planning and scripting for a three camera set up	09 periods	
Module : 3	Introduction to different audio and video editing software Shooting a short interview based programme using a single camera and editing it on the basis of: 4.1 Camera operation, composition, movement, use of lensetc. 4.2 Effective use of light and sound 4.3 Sense of editing 4.4 Other technical considerations	09periods	
Module : 4	Production of a short fiction film 5.1 Preparation of script,	09 periods	

	5.2 Shooting the script in video 5.3 Edit the rushes/footage with sound 5.4 Review and final correction		
Module : 5	Production of a short non- fiction film 6.1 Preparation of script, 6.2 Shooting the script in video 6.3 Edit the rushes/footage with sound 6.4 Review and final correction	09 periods	
Total		45 periods	

Text Books:

Name of Authors	Title of the Book	Edition	Name of the Publishers
K.M.Srivastava	Radio & Television		
Robert Mcleish	Radio Production	5th	
Arthur C Mathews	Radio Production Hand book: A beginner's guide to broadcasting		
Gary H Anderson	Video Editing and post production- A professional Guide		
Tyrrel	The work of Television Journalist		

Reference Books:

M.RogersMcSpadden	Basic Radio Production Handbook		

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Syllabus for:Multimedia Authoring -I Lab

Name of the Course: Diploma in Multimedia Technology.

Course Code:	Semester:Fifth (All Modules should be completed in 5th semester. Evaluation may be done by continuous assessment process and by External Examiner in end semester)
Duration: Seventeen weeks/Semester	Full Marks:100
Teaching Scheme:	Examination Scheme:
Theory : Nil hrs./week	Continuous Internal Assessment Marks:50
Tutorial : Nil hrs./week	Attendance-10,Lab Notebook-15,Regular Performance-25
Practical: 3hrs./week	ExternalAssessment Marks:50
Credit :3	Sessional -20,On spot Job-20,Viva Voce-10

Aim:To impart practical knowledge in Multimedia Authoring related with the study of Multimedia Technology.

Objective: Student will able to put their theoretical learning into practical applications

Sl. No	
1	Develop the skills corresponding to the knowledge acquired in the theoretical subject Multimedia Authoring.
2	Be acquainted with various instruments, mediums and environment required for Multimedia Authoring
3	Develop the concept of using Multimedia Authoring Tools.
4	Practicing Script Writing.
5	Flowchart Creation.
6	Storyboarding
7	Design and development of Multimedia presentations of various nature.

Pre-Requisite: Nil

Sl.No	
1	Knowledge of basic Sound and Video is necessary.
2	Basic concept of PC Operation and OS should be known.
Contents: Total Periods: 45(15Weeks)+ Internal Assessment (2Weeks) =45(17 Weeks)	
Sound Recording and Editing through Sound Forge	
Module : 1	Create a script and storyboard for a slideshow presentation (ex-about a sport/ about a personality). 03 periods
Module :2	Use MS PowerPoint to create a presentation including graphs, pie charts, text, graphics, audio, video and animation. 06 periods
Module : 3	Create script, flowchart and storyboard for a CBT. 06 periods
Module : 4	Use ToolBook for creating a CBT on a chosen topic 09periods
Module : 5	Create script, flowchart and storyboard for a linear and a nonlinear presentation 06 periods
Module : 6	Use Adobe Director to tell a short story in your vernacular language using timeline animation 09 periods
Module : 7	Use Adobe Director to create an interactive portfolio of yourself. 06 periods

Total	45 periods	
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Text Books		
Name of Authors	Title of the Book	Publisher
Jose Lozano	Multimedia – Sound & Video	Prentice Hall, 1998
John Villamil-Casanova, Louis Molina	Multimedia – An Introduction	Prentice Hall, 1995
Tay Baughan	Multimedia making it work	Tata Mcgraw-Hill
AndressHolzinser	Multimedia Basics	Willey India
John Villamil-Casanova, Louis Molina	Multimedia – An Introduction	Prentice Hall of India Pvt. Ltd, 1998
Gokul. S	Multimedia Magic	BPB Publication, 1995
Sinclair	Multimedia on the PC	BPB Publication
Norman Desmorais	Multimedia on the PC	McGraw Hill Inc, 1994
Reference Books		
Judith Jeffcoate	Multimedia in Practice - Technology & Applications	Prentice Hall, 1995
Linda Tway	Multimedia in Actions	AP Professional, 1995
Douglas E. Wolfgram	Creating Multimedia Presentations	QUE Corporation, 1994
Jessica Keys	The McGraw-Hill Multimedia Handbook	McGraw-Hill Inc., 1994
	PC Multimedia – An Introduction to Authoring Application	Francis Botto, 1995
Anil Madaan	Illustrated World of Multimedia	Dreamland Publication, 1999
Ralf Steinmetz &KlaraNahrstedt	Multimedia Computing, Communications and Applications	Prentice Hall PTR, 1995
SI. No.	Question Paper setting tips	
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Syllabus for: Professional Practice III(3D Animation Lab)

Name of the Course: Diploma in Multimedia Technology.

Course Code:	Semester:Fifth (All Modules should be completed in 5th semester. Evaluation may be done by continuous assessment process and by External Examiner in end semester)
Duration: Seventeen weeks/Semester	Full Marks:50
Teaching Scheme:	Examination Scheme:
Theory : Nil hrs./week	Continuous Internal Assessment Marks:25
Tutorial : Nil hrs./week	Attendance-05,Lab Notebook-10,Regular Performance-10
Practical: 3hrs./week	External Assessment Marks:25
Credit :2	Sessional -10,On spot Job-10,Viva Voce-05

Aim: To impart practical knowledge in 3D modelling & Animation related with the study of Multimedia Technology.

Objective: Student will able to

Sl. No	
1.	Forest Scene in 3DS Max
2.	Environment Modelling
3.	Bedroom, Kitchen, Bathroom Interior Design
4.	House Exterior
5.	Apartment in Daylight

Pre-Requisite: Nil

Sl.No			
1	Knowledge of basic & advance 3D modelling is necessary.		
2	Basic & Advance concept of Light & Camera should be known.		
Contents: Total Periods: 45(15Weeks)+ Internal Assessment(2Weeks) =45(17 Weeks)		Hrs./Unit	Marks
Module : 1	1.0 Forest Scene in 3DS Max 1.1 Preparing the Scene 1.2 Camera Setup 1.3 Creating Light Sources 1.4 Texture the Scene 1.5 Fine Tuning 1.6 Final Render Settings	09 periods	
Module :2	2.0 Environment Modelling 2.1 Preparing the Scene 2.2 Camera Setup 2.3 Lighting & Texturing 2.4 Final Render Settings	09 periods	
Module : 3	3.0 Bedroom, Kitchen, Bathroom Interior Design 3.1 Preparing the Scene 3.2 Camera Setup 3.3 Create Light Sources 3.4 Texture the Scene 3.5 Fine-Tuning 3.6 Final Render Settings	09 periods	
Module : 4	4.0 House Exterior 4.1 Preparing the Scene 4.2 Create Additional Materials	09 periods	

	4.3 Light Inside 4.4 HDRI Illumination 4.5 Fine-Tuning Shadows on the facade 4.6 Final Render Settings		
Module : 5	5.0 Apartment in Daylight 5.1 Introduction to Scene 5.2 Preparing the Scene 5.3 Basic Setting for Texturing 5.4 Create & Assign Textures 5.5 Light Setup 5.6 V-Ray Rendering Settings 5.7 Fine Tuning	09 periods	
Total		45 periods	

Text Books		
Name of Authors	Title of the Book	Publisher
	3dsmax7 Fundamentals	NewRiders
Ted Boardman	3d'sMax5 Fundamentals	Techmedia
	Inside3dsmax7	NewRiders
Michele Bousquet	Modelrig, Animate with 3d'smax6	Manyworldprodu
Reference Books		
Michael E. Mortenson	3D Modeling, Animation, and Rendering	Createspace
Boris Kulagin	3ds Max 8 from Modeling to Animation	Bpb
Michael G.	3D Modeling and Animation	Igi Publishing
Lance Flavell	Beginning Blender: Open Source 3D Modeling, Animation, and Game Design	Apress
SI. No. Question Paper setting tips		
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