

Daffodil Polytechnic Institute, Institute Code: 50238 Lesson Plan – Academic session: April 2022 to August 2022

Subject Teacher : Shanta Islam, Instructor

Subject Name : Architecture Rendering & Animation

Subject Code : 68772

Technology : Architecture and Interior Design Technology

Semester : 7th

BTEB Text Book Name : Architecture Rendering & Animation (Publisher: Haque Prokashani)

Reference Book Name: Mastering Auto Desk 3ds Max 2013 by -Jeffrey Harper

C	L:-		Λ:	ms:
> 111	nie	CT	Δ I	me.

• To be able to develop knowledge, skill and attitude in the field of Computer Rendering & Animation (3D Max and V-ray) with special emphasis on - 3D modeling.

- Materials and mapping.
- Light, camera and render.
- V-Ray; and animation.

Subject Outcome:

- 3D Modeling & Animation Software.
- 3D Modeling, Tool Panels & It's Sub Tools.
- Modeling with primitives and 3D Max main tool bar.
- Modeling with Spline, Compound Object and Modifier Stack.
- Setting and Preferences menu, Massing of Building Project.
- Doors, Windows, AEC Extended and Stair, Finishing of Massing, Materials Basics, Texture Mapping. Lighting Basic, Camera Basic, Rendering Basic.
- V-Ray, Render, V-ray Materials and Lights, Animation Basic, Key frame Animation, Work Throw Animation.

Date	Lecture	Chapter/Exam/I		Learning Area	Learning Outcome	С	lass/Lab Supp	orting
		ndustrial Visit					Equipment	's
	01	Chapter 01 & 02	1)	Identify the 3D max Interface.	After the Class, Students will be able to:	1)	PC with	internet
		– Practice 3D	2)	Practice create tool and its sub tools	 3d max interface and modify 		connection,	3ds Max
		Modeling &		like as Geometry, Shapes etc.	tool.		Software,	V-ray
		Animation	3)	Identify Modify tool.			rendering	software,
		Software (3D					Sound Syste	m
		Studio Max)				2)	Projector	

Marks	Grade Point	Letter Grade	Marks	Grade Point	Letter Grade
80>	4.00	A+	55-59	2.75	B-
75-79	3.75	Α	50-54	2.50	C+
70-74	3.50	A-	45-49	2.25	С
65-69	3.25	B+	40-44	2.00	D
60-64	3.00	В	0-39	0.00	F

Mark Distribution (for 150 Marks)									
Theory Marks Practical Marks									
Midterm	20	PC	25						
Class test	10	PF	25						
Quiz test	10	-	-						
Final	60	-	-						
Total	100	Total	50						

Class Timing Distribution						
Particulars	Time					
Greeting with students	05 Minutes					
Previous Class Review	05 Minutes					
Present Class Topic Discussion	30 Minutes					
and Lecture Delivery						
Present Class Topics Review	05 Minutes					

	T			
	And Perform			3) Mobile with Internet
	Tool Panels &			Connection
	It's Sub Tools.			
				Lecture Slide:
	(Practical Class)			https://www.youtube.com/wa
				tch?v=KwRkkGzA98k
				and
				https://www.youtube.com/wa
				tch?v=A2nsS6hSX30
02	Chapter 01 -	1) Define 3D Studio Max.	After the Class, Students will be able to:	1) PC with internet
	Understand 3D	2) Describe the interface of 3D Studio	 Learn about the interface of 	connection, 3ds Max
	Modeling &	Max.	3D Studio Max .	Software, V-ray
	Animation			rendering software,
	Software (3D			Sound System
	Studio Max).			2) Projector
				3) Mobile with Internet
	(Theory Class)			Connection
	(Tricory class)			Connection
				Lecture Slide:
				https://www.youtube.com/wa
	Cl	4) 5 5 6 6 6 6 6 7 7	A.C	tch?v=D7LaYg5-pB0
03	Chapter 03 –	1) Draw Box, Cone, Sphere, Cylinder,	After the Class, Students will be able to:	1) PC with internet
	Practice	Tube, Pyramid, Teapot and Plane by	Detail about standard	connection, 3ds Max
	Modeling with	using Standard Primitives.	primitives and other tools.	Software, V-ray
	primitives.			rendering software,
				Sound System
	(Practical Class)			2) Projector
				Mobile with Internet
				Connection
				Lecture Slide:
				https://www.youtube.com/wa
				tch?v=M-WxAH1nu80
04	Class Test - 1	Examination Topic: Chapter 01 – Understand	3D Modeling & Animation Software (3D	1) PC with internet
		Studio Max). (Theory Based)	-	connection, 3ds Max
		Examination mark: 10		Software, V-ray
		Passing Mark: 04		rendering software,
				Sound System
				2) Projector
				Z) FIOJECIOI

				3)	Mobile with Internet
					Connection
05	Chapter 02 – Understand 3D Modeling. (Theory Class)	 Discuss different types of 3D Modeling. Explain modeling with primitives. 	After the Class, Students will be able to: • Learn about the types of 3D Modeling.	2) 3)	connection, 3ds Max Software, V-ray rendering software, Sound System Projector Mobile with Internet Connection
					/www.youtube.com/wa OeCyTpnn_ck
06	Chapter 04 – Practice Main tool bar. (Practical Class)	1) Practice Move, Rotate, Scale Tool, Mirror, Align tool.	After the Class, Students will be able to: • Learn about Move, Rotate, Scale Tool, Mirror, Align tool.		PC with internet connection, 3ds Max Software, V-ray rendering software, Sound System Projector Mobile with Internet Connection
					e Slide: /www.youtube.com/wa xfTwNFtMAMM
07	Quiz Test - 1	Examination Topic: Chapter 02 – Practice Mode Examination mark: 10 Passing Mark: 04	eling with primitives. (Practical Based)	2)	PC with internet connection, 3ds Max Software, V-ray rendering software, Sound System Projector Mobile with Internet Connection
08	Chapter 03 – Understand materials and mapping.	 Identify Materials editor dialog box. Distinguish between materials and Mapping. 	After the Class, Students will be able to: • Learn about the Materials editor dialog box.	1)	PC with internet connection, 3ds Max Software, V-ray rendering software, Sound System

	(Theory Class)			2)	Projector
	(3)	Mobile with Internet
				_,	Connection
				Lecture	e Slide:
				https:/	/www.youtube.com/wa
					Zeuhe1vgxo
09	Chapter 05 –	1) Draw line, Rectangle, Circle, Ellipse,	After the Class, Students will be able to:	1)	
	Modeling with	Arc, Donut, Star etc. by using spline	Become familiar with line,	,	connection, 3ds Max
	Spline.	under Shapes tool.	Rectangle, Circle, Ellipse, Arc,		Software, V-ray
		, , , , , , , , , , , , , , , , , , ,	Donut, Star etc. by using spline		rendering software,
	(Practical Class)		under Shapes tool.		Sound System
	(* * * * * * * * * * * * * * * * * * *			2)	Projector
				3)	Mobile with Internet
				<i>-</i>	Connection
				Lecture	Slide:
					/www.youtube.com/wa
					VhpesOHL1kU
10	Chapter 06 –	1) Chamfer box and Modifier (Lattice,	After the Class, Students will be able to:		PC with internet
	Practice the	Noise and Smooth).	Become familiar with Chamfer.	_,	connection, 3ds Max
	Compound		December animal with enamen		Software, V-ray
	Object and				rendering software,
	Modifier Stack.				Sound System
	Triodinion occorn			2)	Projector
	(Practical Class)			3)	Mobile with Internet
	(1.100.001.0.00)			- 7	Connection
				Lecture	e Slide:
				https:/	/www.youtube.com/wa
				,	wvalZ33dQ18
11	Class Test - 2	Examination Topic: Chapter 03 – Understand m	naterials and mapping. (Practical Based)	_	PC with internet
		Examination mark: 10	,, ,		connection, 3ds Max
		Passing Mark: 04			Software, V-ray
		-			rendering software,
					Sound System
				2)	•
				-	Mobile with Internet
					Connection

ī					1	
	12	Chapter 07 –	 Apply unit Setup on 3D Max. 	After the Class, Students will be able to:	1) F	PC with internet
		Practice Setting	2) Prepare a 2D Plan of CAD to import	 Learn about 3d max setting. 	c	connection, 3ds Max
		and Preferences	3D Max		5	Software, V-ray
		menu.			r	endering software,
					9	Sound System
		(Practical Class))				Projector
					-	Mobile with Internet
					,	Connection
					Lecture S	lide:
					https://w	www.youtube.com/wa
						HFFTBAyxGM
	13	Chapter 08 & 09	1) Crate Opening for Door and Window.	After the Class, Students will be able to:	1) F	PC with internet
		Perform	2) Create Door and modify it for the	Make opening for Door and	c	connection, 3ds Max
		Massing of	project.	Window.	9	Software, V-ray
		Building Project			r	endering software,
		and practice			5	Sound System
		Doors,				Projector
		Windows, AEC			,	Mobile with Internet
		Extended and			,	Connection
		Stair etc.			`	3011112011011
		Stall Cto.			Lecture S	lide:
		(Practical Class))				www.youtube.com/wa
		(1 ractical class))				pig5B95brE
	14	Quiz Test - 2	Examination Topic: Chapter 04 – Practice Mair	tool bar (Practical Rased)		PC with internet
	14	Quiz Test - 2	Examination Topic: Chapter 64 – Fractice Wall	1 tool bar. (Fractical based)	,	connection, 3ds Max
						Software, V-ray
			Passing Mark: 04			•
						rendering software,
						Sound System
					,	Projector
						Mobile with Internet
	4.5		1) 0 1 05 11 0 1			Connection
	15	Chapter 10 –			1) F	
		Perform the	wall etc.	• Learn to create GF wall,		connection, 3ds Max
		Finishing of		Column, Boundary wall.		Software, V-ray
		Massing.				rendering software,
						Sound System
		(Practical Class)				Projector
1	1	1	1		3) N	Mobile with Internet

						Connection
					_	e Slide: /www.youtube.com/wa W6YtdSfS5IE
16	Chapter 11 – Perform Materials Basics (Practical Class)	1)	Practice Material Editor Dialogue box and its necessary Tools.	After the Class, Students will be able to: • Use Material Editor Dialogue box.	_	PC with internet connection, 3ds Max Software, V-ray rendering software, Sound System Projector Mobile with Internet Connection
					· ·	e Slide: /www.youtube.com/wa k451oobhJ9Q
17	Chapter 04 – Understand light, camera and render. (Theory Class)	1) 2)	Identify different types of light. Explain different types of camera.	After the Class, Students will be able to:		PC with internet connection, 3ds Max Software, V-ray rendering software, Sound System Projector Mobile with Internet Connection
						e Slide: /www.youtube.com/wa 48 110WSCGA
18	Chapter 12 – Practice Texture Mapping. (Practical Class)	1)	Use Texture/Bitmap for material.	After the Class, Students will be able to: • Use Texture/Bitmap for material.	2)	PC with internet connection, 3ds Max Software, V-ray rendering software, Sound System Projector Mobile with Internet Connection
					Lecture	e Slide:

				https://www.youtube.com/wa tch?v=4Zt4yH_9LBs
19	Chapter 13 – Perform Lighting Basic. (Practical Class)	Practice standard and Photometric Light.	After the Class, Students will be able to: • Use standard and photometric Light.	1) PC with internet connection, 3ds Max Software, V-ray rendering software, Sound System 2) Projector 3) Mobile with Internet Connection
				Lecture Slide: https://www.youtube.com/watch?v=CNhAU6NxBhA
20	Chapter 01 – 04	Review Class Lecture 02,05,08, 17	After the Class, Students will be able to: • Regarding students problem – resolve their problems.	1) PC with internet connection, 3ds Max Software, V-ray rendering software, Sound System 2) Projector 3) Mobile with Internet Connection
21	Chapter 01 – 04	Review Class Lecture 02,05,08, 17	After the Class, Students will be able to: • Regarding students problem – resolve their problems.	 PC with internet connection, 3ds Max Software, V-ray rendering software, Sound System Projector Mobile with Internet Connection
	Chapter 01 – 04	Mid Term	Self-examine the depth of knowledge about drawing instrument, color and print media.	
22	Chapter 14 – Perform Camera Basic. (Practical Class)	Insert Target and free Camera.	After the Class, Students will be able to: • Know the basics of camera tool.	PC with internet connection, 3ds Max Software, V-ray rendering software, Sound System

				2) Projector
				3) Mobile with Internet
				Connection
				Lecture Slide:
				https://www.youtube.com/wa
				tch?v=JO1kNNoqnYY
23	Chapter 05 –	1) Define V-Ray.	After the Class, Students will be able to:	1) PC with internet
	Understand V-	2) Describe V-Ray render setup.	Learn about the V-Ray render	connection, 3ds Max
	Ray.		setup.	Software, V-ray
				rendering software,
	(Theory Class)			Sound System
				2) Projector
				3) Mobile with Internet
				Connection
				Lecture Slide:
				https://www.youtube.com/wa
				tch?v=BGvmzPHk1FQ
24	Chapter 15 –	 Practice Render Setup dialogue Box. 	After the Class, Students will be able to:	1) PC with internet
	Perform		Learn about Render Setup	connection, 3ds Max
	Rendering Basic.		dialogue Box.	Software, V-ray
				rendering software,
	(Practical Class)			Sound System
				2) Projector
				3) Mobile with Internet
				Connection
				Lecture Slide:
				https://www.youtube.com/wa
25	Class Table 2	Francisco Tario Che i OF III I i I I	De (There Beerl)	tch?v=SvA1k8BbZLw
25	Class Test - 3	Examination Topic: Chapter 05 – Understand V	-kay. (Theory Based)	1) PC with internet
		Examination mark: 10		connection, 3ds Max
		Passing Mark: 04		Software, V-ray
				rendering software,
				Sound System
				2) Projector
				3) Mobile with Internet
				Connection

		T		•		
26	Chapter 06 –	 Discuss basic concept of animation. 	After the Class, Students will be able to:	1)	PC with inter	net
	Understand		 Learn about the basic concept 		connection, 3ds N	√lax
	Animation.		of animation.		Software, V-	-ray
					rendering softwa	are,
	(Theory Class)				Sound System	
				2)	Projector	
				3)	Mobile with Internet	t
				•	Connection	
				Lecture	e Slide:	
					/www.youtube.com/	/w
					/=hxbMppi3gRg	
27	Chapter 16 –	1) Install V-ray software for 3d max.	After the Class, Students will be able to:	_	PC with inter	net
	Perform V-Ray	, ,	 Install V-ray software for 3d 	,	connection, 3ds N	√lax
	Render.		max.		·	-ray
					rendering softwa	-
	(Practical Class)				Sound System	/
	(**************************************			2)	Projector	
				3)	Mobile with Internet	t
				,	Connection	
					COTTICCTION	
				Lecture	Slide:	
					/www.youtube.com/	wa
					h6yz01WHUAA	
28	Quiz Test - 3	Examination Topic: Chapter 06 – Understand A	nimation. (Theory Based)		PC with inter	net
	Qu.:= 1 000 0	Examination mark: 10		_,	connection, 3ds N	
		Passing Mark: 04			·	-ray
					rendering softwa	
					Sound System	,
				2)	Projector	
				3)	Mobile with Internet	F
				J	Connection	
29	Chapter 06 –	1) Describe set key and auto key	After the Class, Students will be able to:	1)	PC with inter	net
	Understand	animation.	Use set key and auto key		connection, 3ds N	
	Animation.		animation.		·	-ray
	, a miliacion.		difficulti.		rendering softwa	•
	(Theory Class)				Sound System	ui C,
	(Theory class)			2)	Projector	
				2) 2)	Mobile with Internet	,
i e	1	1		. 31	INIODIE WILL IIILELIEL	۱ .

				Connection	
				Lecture Slide: https://www.youtube.com/wa tch?v=486qN4jWpl0&t=48s	
30	Chapter 17 – Perform V-ray Materials and Lights. (Practical Class)	Create a V-ray material slot for color and assign it to an object.	After the Class, Students will be able to: • Learn about V-ray material slot for color.	1) PC with internet connection, 3ds Max Software, V-ray rendering software, Sound System 2) Projector 3) Mobile with Internet Connection	
				Lecture Slide: https://www.youtube.com/wa tch?v=5dXvVzIBMko	
31	Chapter 18 – Perform Animation Basic (Practical Class))	Practice time line & time track, Set Key, Auto key, play animation & time Configuration.	After the Class, Students will be able to: • Set Key and Auto key.	1) PC with internet connection, 3ds Max Software, V-ray rendering software, Sound System 2) Projector 3) Mobile with Internet Connection	
				Lecture Slide: https://www.youtube.com/watch?v=1HWkiLwPWwE	
32	Class Test - 4	Examination Topic: Chapter 15 – Perform Rend Examination mark: 10 Passing Mark: 04	ering Basic. (Practical Based)	1) PC with internet connection, 3ds Max Software, V-ray rendering software, Sound System 2) Projector 3) Mobile with Internet Connection	
33	Chapter 19 – Perform Key	Create a bouncing ball animation.	After the Class, Students will be able to: • Learn about bouncing ball	1) PC with internet connection, 3ds Max	

	frame Animation. (Practical Class)		animation.	2)	Software, V-ray rendering software, Sound System Projector Mobile with Internet Connection
					Slide: /www.youtube.com/wa GXtThw9QHiQ
34	Chapter 20 – Perform Work Throw Animation. (Practical Class)	1) Setup Camera with walk through assistant.	After the Class, Students will be able to: • Learn about Camera with walk through assistant.	2) 3)	PC with internet connection, 3ds Max Software, V-ray rendering software, Sound System Projector Mobile with Internet Connection
					/www.youtube.com/wa 7EgvaYXm1LU
35	Quiz Test -4	Examination Topic: Chapter 18 – Perform Anima Examination mark: 10 Passing Mark: 04	ation Basic. (Practical Based)	2)	
36	Chapter 10 – Three Dimensional Projection. (Practical Class)	 Draw an isometric view of a simple object. Draw an oblique view of a simple object. 	After the Class, Students will be able to: • Draw objects in isometric and oblique view process.	2) 3)	PC with internet connection, 3ds Max Software, V-ray rendering software, Sound System Projector Mobile with Internet Connection

				Lecture Slide: https://www.youtube.com/watch?v=kYqn4QhUqe4		
37	Presentation	Practical presentation	on 3d Studio Max.	1)	PC with	
					connection,	
					Software,	V-ray
					rendering	software,
					Sound Syste	em
				2)	Projector	
				3)	Mobile with	Internet
			T		Connection	
38	Chapter 05 – 06	Review Class Lecture 22, 25, 28	After the Class, Students will be able to:	1)	PC with	
			Regarding students problem —		connection,	
			resolve their problems.		Software,	V-ray
					rendering	software,
				_,	Sound Syste	em
				2)	Projector	
				3)	Mobile with	Internet
					Connection	
39	Chapter 05 – 06	Review Class Lecture 22, 25, 28	After the Class, Students will be able to:	1)	PC with	
			Regarding students problem –resolve		connection,	
			their problems.		Software,	V-ray
					rendering	software,
				_,	Sound Syste	em
				2)	Projector	
				3)	Mobile wi	th Internet
					Connection	