



GOVERNMENT OF TAMILNADU
DIRECTORATE OF TECHNICAL EDUCATION, CHENNAI-25

STATE PROJECT COORDINATION UNIT

(Established under Canada India Institutional Cooperation Project)

CURRICULUM

Course Name	3DS MAX
Course Code	AA/2020/007
Course Duration	40 Hours
Minimum Eligibility Criteria and Pre-requisites (if any)	10 TH STD & Above
Course Objectives	<ul style="list-style-type: none"> The primary objective of this course is to teach students the essentials of working in 3D using an array of features and tools. This course teaches new users the basics of creating, embellishing, and animating 3D scenes.
Course Outcomes	At the end of training, the participants will be able to <ul style="list-style-type: none"> Model objects using a variety of techniques. Design and apply materials. Adjust basic lighting. Animate simple objects. Build and animate simple, effective environments
Expected Job Roles	Design Engineer in various Architecture Firms / Entrepreneur.

TEACHING AND SCHEME OF EXAMINATION						
Course Code	Course Name	Hours		Assessment Marks		Duration of Examination
				Min	Max	
AA/2020/007	3DS MAX	Theory	16	10	20	3 Hours
		Practical	24	40	80	
		Total	40	50	100	

AA/2020/007- 3DS MAX

DETAILED SYLLABUS

Unit No	Modules	No of Hours	
		Theory	Practical
I	Introduction	7 Hours	
1.1	Design harmony	3	4
1.2	Terminology – 3ds Max Interface		
1.3	Quad menu – Tools menu		
1.4	Shapes & Geometry		
1.5	Modifiers.		
	<u>Lab Exercise:</u> Creating a three seated sofa		
II	Modeling	7 Hours	
2.1	Modeling interior & exterior objects	3	4
2.2	Material Editor		
2.3	UVW coordinates		
2.4	UVW Map modifiers		
2.5	Defining material for exterior models		
	<u>Lab Exercise:</u> Create an interior of mall lobby		
III	Lights and Camera	17 Hours	
3.1	Lights	6	11
3.2	Photometric lights		
3.3	Standard lights		
3.4	Camera		
3.5	Rendering.		
	<u>Lab Exercise:</u> Create an interior of coffee shop.		
IV	Animation	9 Hours	
4.1	Animation	4	5
4.2	File management		
	<u>Lab Exercise:</u> Walkthrough of the coffee shop interior.		
Total Theory and Practical Hours		16	24
Total hours		40	

HARDWARE REQUIREMENT

S.NO	LIST OF TOOLS /EQUIPMENTS
1	Computer/Laptop for each student
2	LCD Projector

SOFTWARE REQUIREMENT

AUTODESK 3DS MAX

REFERENCES

S.NO	Particulars	Author	Publisher/Website
1	Introduction to 3DS MAX	-	https://catalog images.wiley.com/images/db /pdf/9780470179840.excerpt .pdf
2	An Introduction to the 3DS MAX interface	-	Autodesk
3	3D Max 2019 Training Guide	<u>Linkan Sagar/ Nisha Gupta-</u>	Kindle Edition
4	Architectural Rendering with 3ds Max and V-Ray: Photorealistic Visualization	Markus Kuhlo	Kindle Edition
5	3ds Max For Engineers & Architects	<u>C.S.Changeriya</u> -	Changeriya Brothers
6	Autodesk 3ds Max 2019: A Beginners Guide	<u>Prof. Sham Tickoo</u> -	<u>BPB PUBLICATIONS.</u>
7	3ds Max Projects: A Detailed Guide to Modeling, Texturing, Rigging, Animation and Lighting (You Tube)	Matt Chandler , <u>Pawel Podwojewski</u> , Jahirul Amin, Fernando Herrera	3DTotal Team
8	3dsmax Tutorial - Beginners Guide (You Tube)	-	TopHATTwaffle
9	3DS MAX TUTORIAL (You Tube)	-	Simulation Lab

ASSESSMENT AND CERTIFICATION

S.No	Criteria for Assessment
1.	A trainee will be assessed based on the performance in End Examination for Theory and Practical conducted internally in the Project Polytechnic College for a duration of 3 hours
2.	A trainee must have 75% of attendance to appear for End examination in Theory and Practical.
3.	The assessment for theory part will be based on the marks scored in the end examination on the knowledge bank of questions (1 word/objective type questions)
4.	The assessment for practical part will be based on the marks scored in the end examination conducted by the Project Polytechnic and assessed by the Examiners approved by Strategic Plan Implementation Committee (SPIC) of the project polytechnic.
5.	The passing criteria for successful completion of training is every trainee should score 50% of marks in theory and practical examination.
6.	On successful completion of training, certificate will be issued by Directorate of Technical Education through the project polytechnic.

END EXAMINATION

ALLOCATION OF MARKS

S.No	Description	Max. Marks
1.	Theory Examination	20
2.	Practical Examination	
	a) Aim and Procedure	20
	b) Demonstration / Execution	25
	c) Result & Viva Voce	15
	d) Record	20
Total Marks		100

THEORY MODEL QUESTION PAPER

AA/2020/007 - 3DS MAX

(Maximum Marks: 20)

(N.B: Answer any **Twenty** questions)

20x1= 20 Marks

1. Which is a single point in a graphic image?
2. What is the portion of a spline between two vertices?
3. An object maximum dimension in X,Y,Z is called _____
4. Which can change an object's geometrical structure?
5. Which type of helper object you can create for local reference grid?
6. Which records the beginning and end of each transformation of an object?
7. A wireframe box that encloses the extents of an object is called _____
8. Which provides quick access to tools and dialogue boxes?
9. Area of the user interface where the objects are displayed is called _____
10. An arbitrary point in space is used as the _____
11. Which is used to describe the placement of maps?
12. Which specifies the scale of the map on the geometry?
13. Which is used to replicate an image used as a map?
14. Images generated by the computer in between the key frames is called _____
15. Which contains information about the scene and the active command?
16. Which is an icon-based menu available from any button?
17. A collection of vertices and connecting segments that form a line or curve is called _____
18. Which is the standard time display format for most professional animation work?
19. Two dimensional arrays of lines similar to graph paper are called _____ -
20. What is found at the top of windows program?
21. Which is typically defined by values for the x-axis, y axis is called _____
22. What is 3 D navigation tool?
23. Which provides a visual and when you transform objects is called _____
24. Which can change an object?
25. Which is used to design materials and maps?