

Name of Faculty	:	Faculty of Design
Name of Program	:	Diploma in Design (D. Des.) - Animation, VFX & Gaming
Course Code	:	2DAG03
Course Title	:	Introduction to 3Ds Max
Type of Course	:	Professional Core
Year of Introduction	:	2023-24

Prerequisite	:	
Course Objective	:	This course is designed to introduce students to the basics of Autodesk 3ds Max, a powerful 3D modeling, animation, and rendering software. The course is suitable for beginners with little to no prior experience in 3ds Max or 3D design.
Course Outcomes	:	At the end of this course, students will be able to:
	CO1	Learn various modeling techniques to create 3D objects, such as using primitive shapes
	CO2	Knowledge of applying textures, creating materials, and using UV mapping techniques to add realism to their 3D models
	CO3	Understand animation principles and learn how to animate objects and characters using keyframes and animation controllers
	CO4	Chance to unleash their creativity and develop their artistic skills while working

Teaching and Examination Scheme

Teaching Scheme (Contact Hours)			Credits	Examination Marks				
L	T	P		Theory Marks		Practical Marks		Total Marks
SEE	CIA	SEE	CIA					
3	0	4	5	70	30	30	20	150

Legends: L-Lecture; T-Tutorial/Teacher Guided Theory Practice; P – Practical, C – Credit, SEE – Semester End Examination, CIA – Continuous Internal Assessment (It consists of Assignments/Seminars/Presentations/MCQ Tests, etc.)

Course Content

Module No.	Topics	Teaching Hours	Weightage	Mapping with COs
1	Introduction to 3ds Max , Overview of 3D computer graphics, Introduction to 3ds Max interface and workflow, Navigation and viewport controls, Customizing the interface	8	17%	CO1
2	Creating and Modifying 3D Objects , Working with basic geometric primitives, Modifying objects using transform tools, Using modifiers to deform and edit objects, Grouping and linking objects	8	17%	CO2 CO3
3	Materials and Textures , Introduction to materials and shaders, Applying materials to objects, Working with texture maps, Creating procedural materials	7	16%	CO2
4	Lighting and Cameras, Introduction to lighting techniques , Using different types of lights in 3ds Max, Adjusting light properties and shadows, Setting up cameras for different perspectives, Animation Basics, Keyframe animation principles, Animating object properties (position, rotation, scale), Creating and editing animation paths, Understanding the timeline and animation controls	8	17%	CO3 CO4
5	Advanced Animation Techniques , Working with the Curve Editor and Dope Sheet, Using constraints and controllers for complex animations, Animating characters and rigs, Animating cameras for dynamic shots, Particle Systems and Dynamics, Introduction to particle systems, Creating and animating particle effects, Simulating dynamics and collisions, Working with physics simulations	7	17%	CO3
6	Rendering and Output, Understanding the rendering process, Adjusting rendering settings and output formats, Applying render effects and post-processing, Rendering still images and animations, Scene Management and Workflow, Organizing scenes using layers and groups, Working with scene hierarchies, Using scene management tools, Optimizing scenes for better performance	7	16%	CO2 CO4

Suggested Distribution of Theory Marks Using Bloom's Taxonomy						
Level	Remembrance	Understanding	Application	Analyse	Evaluate	Create
Weightage	16	16	32	20	16	0

NOTE: This specification table shall be treated as a general guideline for the students and the teachers. The actual distribution of marks in the question paper may vary slightly from above table.

Reference Books

Sr. No.	Name of Reference Books
1	3ds Max 2022 for Beginners: A Tutorial Approach" by Prof. Sham Tickoo
2	3ds Max 2021: A Comprehensive Guide" by Prof. Sham Tickoo - Another book by Prof. Sham Tickoo
3	3ds Max 2020: A Detailed Guide to Modeling, Texturing, Lighting, and Rendering" by CADArtifex
4	Autodesk 3ds Max 2021: A Detailed Guide to Modeling, Texturing, Lighting, and Rendering" by Prof. Sham Tickoo
5	

List of Journals / Periodicals / Magazines / Newspapers / Web resources, etc

Sr. No.	Name of Journals / Periodicals / Magazines / Newspapers / Web resources, etc
1	World of 3d
2	Real to Virtual world