

Coresofttech – Franchisee CADDESK – Hadapsar & CADDESK Swargate

3ds Max for Engineers / Architects Total Duration: 60-80Hrs

Session	Project	Tools to be covered
Session 1	Creating a 3 Seater and single seater Sofa with different visual styles	<p>Need for 3D, Introduction about 3ds Max Project work flow</p> <ul style="list-style-type: none"> ○ Modeling, Texturing, Lighting, Animation, Rendering and Compositing <p>Definition for Max for Engineers/Architects User interface - Command Panel, Main Toolbar, Customizing Viewport, View port controls. Different Visual styles (Quadro graphics card recommended) Explain about different Output file formats -JPEG, GIFF, TIFF, AVI, BMP, TGA. Creating, Modifying & Transforming Standard primitives-All, Extended primitives-All Creating objects using Key board entry. Naming the object</p>
Session 2	Create a waiting hall by using clone option and co-ordinate systems	<p>Selection methods</p> <ul style="list-style-type: none"> ○ Selection Region with Window/Crossing, ○ Select by Name window, ○ Named and Edit selection set, ○ Select by object window, <p>Transforming Objects</p> <ul style="list-style-type: none"> ○ Move, Rotate, Uniform & Non-uniform Scaling, ○ Using Axis constraints(X,Y,Z), ○ Transform type in Window. <p>Reference Co-ordinate System</p> <ul style="list-style-type: none"> ○ View ○ Local ○ Pick <p>Pivot Point</p> <ul style="list-style-type: none"> ○ Use Pivot point center ○ Use Selection center ○ Use Transform Coordinate center <p>Clone Method – Copy option</p>
Session 3	Creating an auditorium model	Unit Setup

		<ul style="list-style-type: none"> ○ System Unit Setup ○ Display Unit Scale <p>Group – Ungroup, Open, Close, Attach, Detach Hierarchy</p> <ul style="list-style-type: none"> ○ Affect Pivot Only ○ Affect Object only ○ Affect Hierarchy only ○ Center to Object ○ Align to Object ○ Align to World ○ Reset Pivot <p>Snap</p> <ul style="list-style-type: none"> ○ 2D, 2.5D, 3D ○ Angular snap, ○ Percent Snap, <p>Utility tools - Align tool, Quick Align, Mirror, Array, Spacing tool, Clone and Align, Layer Manager</p>
Session 4	Creating a Chair model	<p>Modeling using Parametric Deformers (Modifiers) - Bend, Taper, Twist, Relax, Skew, Stretch, Mirror. Selection Modifiers</p> <ul style="list-style-type: none"> ○ Mesh select, ○ Poly select, ○ Patch select <p>Modeling using Parametric Deformers(Modifiers)- Slice, Shell, Displace, Noise, Spherify, Lattice, Ripple, Wave, Affect Region. Squeeze.</p>
Session 5	Creating a Pillow model	<p>Modeling using Free Form Deformers (Modifiers)</p> <ul style="list-style-type: none"> ○ FFD Box, ○ FFD Cylinder, ○ FFD2x2x2, ○ FFD3x3x3, ○ FFD4x4x4.
Session 6	Creating a King size sofa model	<p>Poly Modeling Tools- Convert to editable poly, Edit Poly-Selection, Soft selection, Edit polygons, Edit geometry, Polygon properties, Paint deformation.</p> <p>Poly Modeling – Creating a Set model</p>
Session 7	Creating a Logo model. Creating a Cushion sofa model	<p>Shapes</p>

		<ul style="list-style-type: none"> ○ Splines ○ Extended Splines <p>Edit Spline Modifier Patch Modeling-Edit patch-Selection, Soft selection, Geometry, Surface properties. Importing DWG Files from AutoCAD. Creating Plans using Shapes with 2D Snap,</p> <ul style="list-style-type: none"> ○ Edit spline modifier ○ Rendering, ○ Interpolation, ○ Selection, ○ Soft selection, ○ Geometry.
Session 8	Creating a building model with trees and plants	<p>Modeling the building using AEC Extended objects</p> <ul style="list-style-type: none"> ○ Wall, ○ Railing, ○ Foliage, ○ Stairs, ○ Doors and ○ Windows. <p>Compound Objects</p> <ul style="list-style-type: none"> ○ Boolean, ○ Pro-Boolean, ○ Scatter, ○ Connect.
Session 9	Creating Fountain source model	<p>2D Modifiers</p> <ul style="list-style-type: none"> ○ Extrude,Lathe, ○ Bevel Profile, Bevel, ○ Cap holes, Sweep, <p>Animation Modifiers</p> <ul style="list-style-type: none"> ○ Path deform (WSM), Patch deform (WSM).
Session 10	Creating a Cycle model	<p>Compound Object - Shape Merge, Loft, Deforming Loft objects</p> <ul style="list-style-type: none"> ○ Scale, Twist, ○ Teeter, Bevel.

		Importing ArchiCAD files, 3d AutoCAD files, Xref.
Session 11	Creating an architectural material for the building model,	<p>Slate Material Editor and Compact Material Editor</p> <ul style="list-style-type: none"> ○ Tools in material editors, ○ Shading basic parameters, ○ Extended parameters, ○ Saving Materials.
Session 12	Creating a different types of materials to building model	<p>Materials</p> <ul style="list-style-type: none"> ○ Standard,Architectural, ○ Multi/sub objects materials. <p>Standard Material - Maps Rollout</p> <ul style="list-style-type: none"> ○ Diffuse,Opacity, ○ Raytrace,Bump, ○ Reflection,Refraction.
Session 13	Applying special material to Wall and partition wall objects	<p>Compound Materials</p> <ul style="list-style-type: none"> ○ Blend,Double sided, ○ Top/Bottom,Shellac materials, <p>Composite</p>
Session 14	Applying the light object to the building model interior and exterior	<p>Standard Lights</p> <ul style="list-style-type: none"> ○ Omni- General Parameters, Intensity/color/Attenuation, Advance effects, Shadow parameters, Shadow Map Parameters. ○ Target & Free spot, ○ Target& Free Direct, ○ Sky light <p>Photometric lights</p> <ul style="list-style-type: none"> ○ Target Light, ○ Free Light ○ Exposure Controls, Templates, ○ General Parameters, Shadows, ○ Light Distribution, Intensity/Color/Attenuation, Light Shape

<p>Session 15</p>	<p>Creating Water Fountain</p>	<p>Particle systems</p> <ul style="list-style-type: none"> ○ Spray, Snow, ○ Super spray. <p>Space warps</p> <ul style="list-style-type: none"> ○ Forces ○ Path Follow, ○ Wind, ○ Motor, ○ Gravity. <p>Deflectors</p> <ul style="list-style-type: none"> ○ Deflector, ○ UDeflector, ○ Sdeflector.
<p>Session 16</p>	<p>Creating Fog environment for the building model</p>	<p>Environment effects</p> <ul style="list-style-type: none"> ○ Atmospheric Apparatus ○ Boxgizmo, Sphere Gizmo, CylGizmo, Fire – Fire Ball Explosion, Tendril <p>Environment Effect</p> <ul style="list-style-type: none"> ○ Volume Fog and Fog <p>Water Effect</p> <ul style="list-style-type: none"> ○ Flex modifier, Attachment Constraint <p>Cloth Effect</p> <ul style="list-style-type: none"> ○ Cloth Modifier.

<p>Session 17</p>	<p>Creating a Perspective view and animation walkthrough using camera</p>	<p>Cameras</p> <ul style="list-style-type: none"> ○ Target Camera & Free Camera <p>Animation</p> <ul style="list-style-type: none"> ○ Introduction to Key frame Animation, ○ Path Animation – Path Constraint <p>Graph Editors</p> <ul style="list-style-type: none"> ○ Track view Dope Sheet ○ Track view Curve Editor
<p>Session 18</p>	<p>Applying advanced rendering to get realistic effect for the building</p>	<p>Rendering</p> <ul style="list-style-type: none"> ○ Scanline Rendering <p>Advanced Rendering</p> <ul style="list-style-type: none"> ○ Quick Silver Hardware Rendering ○ Mentalray Rendering. ○ Exposure Control ○ Advanced Lighting Dialog – Radiosity, Light Tracer, <p>Advanced Lighting Override</p> <ul style="list-style-type: none"> ○ Render to Texture ○ Iray rendering
<p>Session 19</p>	<p>Handling other max files and applying external filter effects</p>	<p>File Handling</p> <ul style="list-style-type: none"> ○ Merging max files, ○ Render AVI Files file formats, ○ Print Size Wizard - TIFF. <p>Video post Filter Events</p> <ul style="list-style-type: none"> ○ Lens Effects Glow ○ Lens Effects Highlight ○ Lens Effects Flare <p>Composite Multiple AVI files into a single Avi file. Export File formats-Obj, Iges, 3ds.</p>
<p>Session 20</p>	<p>Creating a mini project</p>	<p>Project</p>