



## Overview

The **Autodesk 3ds Max Essentials** course provides a thorough introduction to the Autodesk 3ds Max software that will help new users make the most of this sophisticated application, as well as broaden the horizons of existing, self-taught users. It explores the **creation of 3D objects and how to bring in objects from other software such as Autodesk Revit, AutoCAD, and Civil 3D**. Additionally, it teaches you to **prepare the scenes for renderings** by adding materials, lights, and cameras. Finally, the guide covers an understanding of various renderers included with the software as well as **image creation and animation techniques**.

## Features and Benefits

1. This is a recognized Autodesk course and a preparation course for the Autodesk 3DS Max ACU/ACP exam certification.
2. The CAD Corporation (Pty) Ltd is a **registered Autodesk Training Provider**.  

3. Get **12 months** access to your course via our **myWay Learning Platform** that includes video lectures, extra resources, questionnaires and much more.
4. Take full advantage of our new **Hybrid Learning** by attending on **campus** or **virtually**. Have all your classes ready to be **downloaded** and **watched**, anytime, anywhere.  

5. Attendees will **gain confidence** and enhance their practical skills and knowledge in this field.
6. A favourite among **game developers, TV commercial studios, and architects**, 3ds Max is owned by Autodesk, the same company responsible for programs like Maya and AutoCAD.
7. 3ds Max is often used for **character modelling and animation** as well as for **rendering** photorealistic images of buildings and other objects.

## Course Prerequisites

It is recommended that delegates have a working knowledge of one or more of the following:

- Drafting, design or engineering principles
- Experience with 3D modelling is recommended

## Delivery Methods

- Campus-based
- On-Site
- Virtual Live
- Online Self-paced

## Duration

**In Class/Virtual Class**, Hybrid Learning

**3 Days** (08:30 – 16:00) Classes are presented via our **Hybrid Learning** allowing learners the **flexibility** to attend on campus or in the comfort of their home or workplace.

**Online**, Mentored Learning

**12 Months** (Self-paced, access anytime, anywhere via our myWay Learning Platform)

## Payment Options

Full course fee payable upfront or apply for our 3 Month Finance Option (Deposit R2000 upfront, 3 Months' payment terms)

An **additional fee** is payable for accredited courses & exam vouchers.

## Course Accreditations

- The CAD Corporation (Pty) Ltd is a registered Autodesk Training Provider.

## What you get

On completion the learner will earn:

- **Certificate of Completion** from **Autodesk**
- **Autodesk Certified User or Autodesk Certified Professional** international exam certification available (ACU/ACP)

*Note: All certificates are electronically issued.*

## Course Outline

### Module 1: Introduction to Autodesk 3ds Max as a BIM Tool

- What is BIM and what does it mean?
- The benefits of BIM
- What will BIM and 3Ds Max deliver?
- Industry drivers
- Introducing Levels of BIM
- Promises in terms of visual improvements

### Module 2: UI Tour and Project Navigation

- Introducing the menu and screen layout
- Interrogating the model and viewports
- Standard screen and command panel
- Modelling toolbars
- Time and animations controls

### Module 3: Working concepts, key tools and Basic File Setup

- Important working concepts
- Surface modelling, object and material naming
- 3Ds Max workflows
- File management, units, backup, saving options

### Module 4: Basic object creation, transformation and modification

- Creating – the panel, names and colour
- Transform – move, rotate, scale, gizmos, type-ins and angle snaps
- Modify – overview, the panel, parameters, the modifier stack, gizmos and mesh density

### Module 5: 2D Splines to 3D Modelling basics

- Modelling background
- Mesh Density
- Object manipulation tools
- 2D and 2.5D snaps
- Alignment tool
- Lines

### Module 6: Creating and Manipulating Editable Polys

- Poly modelling and the ribbon
- Editable Poly
- Poly sub-elements
- Normals and backfacing

### Module 7: Importing and working with .DWG and .MAX files

- DWG Files
- Layers and 3Ds Max
- DWG File Layers

### Module 8: Creating and Applying Materials and Textures

- Local vs. Global Illumination
- Standard Lighting
- Types of Standard Lights
- Shadow Types

### Module 9: Creating Light and Shadow

- Basic lighting methodologies
- Types of light, their use and three-point lighting
- Shadows – options and Map shadows

### Module 10: Camera setup, clipping and manipulation

- Camera types – target and free
- Viewport derived cameras
- Lenses
- Length and stock lenses

### Module 11: Rendering images and simple Animation

- Choice of renderer
- Relationship of aspect ratio and image aspect
- Output size and test renders
- DPI for printing
- Animation sizes
- File types

## Outcomes and Objectives

- Introducing 3Ds Max as a BIM Tool
- UI Tour and Project Navigation
- Working concepts, key tools and Basic file setup
- Basic object creation, transformation and modification
- 2D Splines to 3D Modelling basics
- Creating and manipulating Editable Polys
- Importing and working with .DWG and .MAX files
- Creating and applying Materials & Textures
- Creating Light and Shadow
- Camera setup, clipping and manipulation
- Rendering images and simple animation

For more information, please contact a student advisor:

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