H. No. 125, Near D.P.S. School,
Sector - 28, Gurgaon, Haryana, 122002
+91-9811961403
contact@bimncad.com, www.bimncad.com

Course: Trimble SketchUp + V-Ray

Course Description

This course covers the basics of Trimble SketchUp with a focus on the use of 3D geometry creation and external plug-in tools.

Class and Lab hours:

20 (15 Theory, 5 Lab)

Prerequisite:

Aspirants must know the basic geometrical shapes and their properties.

Course Objectives

Upon completion of the course, trainees/students will be able to:

- *Create basic 3D geometry*
- *Create basic 3D renderings using V-Ray for SketchUp*

Major Instructional Areas:

- *The basics of 3D geometric creation*
- *The basics of curved geometry*
- *Geo-locate models with Google Earth*
- *Use sandbox tools for advanced 3D geometry creation*
- *Create basic 3D renderings using V-Ray for SketchUp*

Detailed Course Outline

Unit Heading	*Unit Outcomes*	*Unit Topics*
1. Starting with Trimble SketchUp	• *Trimble SketchUp user interface* • *The basics of 3D geometry*	• *Introducing Trimble SketchUp interface and toolbars* • *Drawing different types of 3D geometrical shapes*
2. Editing the 3D geometry	• *Editing and modifying the 3D geometry as per the user needs*	• *Modifying, measuring, rotating, scaling, and moving geometry* • *Creating and placing section slices to view and work on model interiors.* • *Softening and smoothening edges.*
3. Textures and Components	• *Creating and assigning textures, and components*	• *Creating and adding textures like brick, wood, shingles, and glass to models* • *Adding pre-made components like trees, cars, doors, and windows, and people to models, and creating new components* • *Authoring custom intelligent objects called Dynamic Components.*
4. Additional Tools	• *Shadow Settings.* • *Import/Export 3D models.* • *Camera Settings.* • *Import/Export 2D images*	• *Casting real-time shadows for any location on earth.* • *Simulating movie camera placements.* • *Performing and exporting walk-through.* • *Creating presentation tours.* • *Using organic modeling (Sandbox tools)* • *Importing 2D images (JPEG, PNG, TIFF, TGA, BMP, and PSD)* • *Importing 3D models and information (SKP, Google earth terrain, 3DS, DEM, DDF, DWG, DXF, etc.)* • *Exporting 3D models to different formats (3DS, DWG, DXF, FBX, OBJ, XSI, etc.)* • *Exporting 2D images (PDF, EPS, EPX, DXF, JPG, PNG, TIFF, and BMP)*
5. Plug-ins and extensions	• *Setting render options and creating renders using V-Ray for SketchUp.*	• *Creating different types of lights using V-Ray lights.* • *Setting render options as desired by the user.* • *Creating renders using V-Ray for SketchUp.*

Evaluation:

There will be one exam that every trainee/student must pass with at least 75% or more to get a certificate of completion from BIMNCAD.

Suggested Learning Approach

In this course, you will study individually or within a group of your peers. As you work on the course deliverables, you are encouraged to share ideas with your peers and instructor, work collaboratively on projects and team assignments, raise critical questions, and provide constructive feedback.