



G-TEC EDUCATION

— G-TEC Group of Institutions —

www.gteceducation.com

GOOGLE SKETCHUP & LUMION

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DURATION: 15 DAYS/ 30 HOURS

OBJECTIVE

In this course, you will learn how to start Lumion projects, add environment, add cameras, set global and direct illuminations, populate your scenes with people, trees, cars, and other elements, create terrains, and produce animations. Want to learn multi-purpose, easy to grasp, and one of the world's most popular CAD applications that provides designing solutions to all industries such as mechanical, architectural, and civil then Google SketchUp would be the right software to learn for you.

STUDENTS PRE-REQUISITES AND EXPECTED QUALIFICATION

Photoshop is an essential tool for anyone wishing to create 3D visualizations. 3DS Max or Revit are great for producing constructions to be enhanced with Lumion & Google SketchUp

SYSTEM REQUIREMENTS

- ✓ Operating System: Windows 7,8,8.1 or 10
- ✓ Processor: Intel I series or AMD RYZEN series
- ✓ Ram Capacity: 4 to 16 GB
- ✓ disk space availability: 2 GB and more
- ✓ Display: 1280×720 (HD) or 1920×1080 (FHD)

EXIT PROFILE

- ✓ Architect
- ✓ Landscape Architect
- ✓ Interior Architect
- ✓ Civil engineer with an interest in 3D visualization
- ✓ Student interested in 3D visualization

CAREER PATH

- ✓ Architects
- ✓ Landscape Architects
- ✓ Interior Architects
- ✓ Civil engineers with an interest in 3D visualization
- ✓ Students interested in 3D visualization

COURSE OUTLINE

SKETCHUP

- ✓ Introduction
- ✓ Getting to know the Interface
- ✓ Manipulating Objects
- ✓ Drawing
- ✓ Measuring and Labelling
- ✓ Working with Components
- ✓ Organizing Scenes
- ✓ Creating Textures and Materials

SYLLABUS

- ✓ Creating Terrain Using Sandbox
- ✓ Using Photo Match and Google Earth
- ✓ SketchUp Pro: Working with the Solid Tools
- ✓ SketchUp Pro: Importing and Exporting
- ✓

LUMION

- ✓ Introduction to Lumion
- ✓ Display controls
- ✓ Background settings
- ✓ Material apply
- ✓ Predefined objects
- ✓ Render settings
- ✓ Advance settings and Animations.

GOOGLE SKETCHUP

MODULE IN DETAIL

INTRODUCTION

- ✓ Installing SketchUp Starting SketchUp for the first time
- ✓ Using the exercise les

GETTING TO KNOW THE INTERFACE

- ✓ Interface basics
- ✓ Adding toolbars
- ✓ Navigating
- ✓ Changing perspective
- ✓ Walking around
- ✓ Creating camera views
- ✓ Shading faces and edges
- ✓ Creating shadows and fog
- ✓ Creating Scenes
- ✓ Setting preferences

MANIPULATING OBJECTS

- ✓ Selecting and moving objects
- ✓ Scaling and rotating objects
- ✓ Manipulating faces and edges
- ✓ Advanced selection tools

DRAWING

- ✓ Line tool fundamentals
- ✓ Refining objects with the Line tool
- ✓ Using the Rectangle tool
- ✓ Pushing and pulling faces into 3D

SYLLABUS

- ✓ Creating circles and polygons
- ✓ Creating arcs
- ✓ Using the O-set tool to create outlines
- ✓ Using the Follow, Me tool
- ✓ Softening round edges
- ✓ Creating 3D text

MEASURING AND LABELING

- ✓ Using the Tape Measure tool
- ✓ Using the Protractor tool
- ✓ Creating text labels
- ✓ Using the Dimension tool
- ✓ Creating sections

WORKING WITH COMPONENTS

- ✓ The Component window
- ✓ Creating components
- ✓ Using the 3D Warehouse
- ✓ Importing from Google Earth
- ✓ Using the Interact tool
- ✓ Using the Component Options window

ORGANIZING SCENES

- ✓ Grouping objects
- ✓ Working with layers
- ✓ Creating layers
- ✓ Using the Outliner
- ✓ Hiding and Unhiding objects
- ✓ Locking and unlocking objects

CREATING TEXTURES AND MATERIALS

- ✓ Using the Materials Browser on a Mac
- ✓ Applying materials
- ✓ Editing materials
- ✓ Creating materials
- ✓ Adjusting materials
- ✓ Applying bitmap images
- ✓ Mapping curved objects
- ✓ Projecting maps on curved objects
- ✓ Importing floor plans
- ✓ Modelling with floor plans
- ✓ Rendering and Animating
- ✓ Outputting 2D bitmaps
- ✓ Basic animation
- ✓ Advanced animation

CREATING TERRAIN USING SANDBOX

- ✓ Creating terrain from contours

SYLLABUS

- ✓ Modelling objects with contours
- ✓ Creating terrain from scratch
- ✓ Sculpting with the Smoove tool
- ✓ Stamping and draping objects on terrain

USING PHOTO MATCH AND GOOGLE EARTH

- ✓ Geo Location with Google Maps
- ✓ Using Photo Match to align cameras
- ✓ Modelling in Photo Match

SKETCHUP PRO: WORKING WITH THE SOLID TOOLS

- ✓ Creating solids
- ✓ Using Boolean operations (Union, Intersect, Subtract)
- ✓ Working with Trim and Split
- ✓ Creating outer shells

SKETCHUP PRO: IMPORTING AND EXPORTING

- ✓ Importing objects from AutoCAD
- ✓ Importing other 3D objects
- ✓ Exporting objects

LUMION

MODULE IN DETAIL

INTRODUCTION TO –LUMION

- ✓ Screen components, importing 3dsmax & sketch files into Lumion.

DISPLAY CONTROLS

- ✓ Front back left right moving on screen, move upward and downward on screen, orbit on Lumion, X, Y, Z position.

BACKGROUND SETTINGS

- ✓ Landscape settings, weather settings, push and pull, camera settings.

MATERIAL APPLY

- ✓ Material adding, material editing, and material texture adjusting.

PREDEFINED OBJECTS

- ✓ Importing objects- human, tree, bus, outskirts...etc.

RENDER SETTINGS

- ✓ Effects, rendering for interior, rendering for exterior, saving rendering.

ADVANCE SETTINGS AND ANIMATIONS