3D Modelling

Course Objectives:

3D Modelling Software, widely preferred by construction owners, inspectors, architects, engineers and subcontractors for a glitch free precision enriched work output.

The course is designed for individuals who wish to learn the 3D modeling for building design applications. The course chapters are arranged in such a way to integrate concepts related to each topic and the same is justified with the corresponding tools and application oriented examples. This makes the learning simple and systematic and enables one to gain more insight on the various tools covered.

Prerequisites of Training:

- To get started in 3D modeling, you have to have a passion for the computer: that is without a doubt but in addition to this things which will help the student to get through are as follows:
- Creating in a 3D workspace
- Applying special effects
- Optimization

Overview:

Using 3D modelling software can be helpful for you no matter what your sector is. You can use it in order to 3D print and manufacture your products, to get a better visualization of your projects or to make simulations. These 3D tools can totally help you to develop your projects in the medical sector, in architecture, or even in chemistry. It will offer you new possibilities and help you in your daily work. But using a 3D modeling software is not that easy, and you might be wondering how to learn 3D modeling.

Have you ever thought about online classes to learn 3D modeling, to use 3D printing and take your manufacturing process to the next level? In this blog post, we made a selection of the best online 3D modelling classes. They will totally help you with your 3D printing projects, but not only! Follow the guide.

Why you should learn how to use 3D modelling software

Implementing the 3D printing technology in your manufacturing process can have a lot of benefits. In order to do so, you will necessarily have to deal with 3D modeling to create your products. This way, you will get a 3D representation of your product, and get a clear and better visualization of the whole project.

Using 3D modelling software and 3D printing will help you with your production and prototyping process. Designers and engineers can totally use it to iterate their designs and create functional prototypes. Indeed, using the 3D technology, creating iterations of your project will be quite fast and easy. You just have to modify the 3D file to make a new iteration using an online 3D printing service like Sculpteo. Knowing how to use 3D modeling software could really help you to do all of this by yourself and save time and money!

If you are not a 3D modelling expert, there are some 3D software tools available on the market for beginners, you can choose among the best free CAD software. Nevertheless, to use a 3D software, even if it is for beginners, you still need to know the basics of 3D modeling! For this, online 3D modeling classes might be the best solution.3D modeling for 3D printing project is also very specific, that is why at Sculpteo we launched Sculpteo Studio, a consulting service, with experts able to help you with the design aspect of your project. We will come back to it later in this article.

 Visualization using 3D CAD software

Using 3D modelling can also be useful on some other levels. Indeed, using 3D modeling software could help you bring your projects even further and help you with the rendering and the visualization of your project. This aspect can particularly be useful for the medical sector, in order to get a better visualization of the patient's problem. This way the surgeon can proceed to some simulation in order to see how to help the patient and solve his problem. It saves time, money, and

lives. The visualization aspect can also be an asset for some other sectors like architecture for example. It is a smart way to show your architecture project to the customers, thanks to the great rendering tools of CAD software.

Art and game design

Knowing how 3D modeling works can also offer you new opportunities. It is essential for example to work in game design, or to make digital art. 3D software is also more and more present in the film industry, to create outstanding visual effects.3D design and 3D printing can both be used to give life to amazing art projects, for example. But for this, you necessarily have to know how to use 3D modeling programs. As you can see, this 3D technology could bring you new possibilities.

Intended Outcomes for the course:

Upon completion of the course students will be able to

- Work with and navigate the unique features of the digital 3D modelling workspace to create 3D objects.
- Identify characteristics of rendering 3D objects for optimal system processing and analysis.
- Create a 3D environment featuring lighting and textures.
- Create basic 3D models and animations.
- Evaluate digital 3D projects, identify items for improvement, and implement changes.

Suitable Audience:

- You are good to go as long as you have a computer and a good sense of spatial awareness and beyond that, just the need and urge to learn. It is a bit technical, but it does not have to be technical in terms of computer science. There are a lot of people who are very successful modelers and are absolutely on the artistic side rather than the technical side of the spectrum.
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Course Outline:

Chapter	Topic	No. of hours
Chapter 1	Use Blender and understand it's interface	2
Chapter 2	Understand the principles of modelling	2
Chapter 3	Create 3D models with simple colors	4
Chapter 4	Learn the basics of animation	2
Chapter 5	Explore and have fun with particle effects	3
Chapter 6	Create your own materials	4
Chapter 7	UV map and unwrap your models	2
Chapter 8	Export your models to external packages	4
Chapter 9	Use Blender's physics engine to create destruction	3
Chapter 10	Combine CGI with real life footage	4