Blender 3D in 7 Days

Create usable and powerful 3D models to become a professional Blender 3D artist in 7 days!

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DURATION 3.5 Hours

OVERVIEW

So, you've seen the latest movies and video games and want to be a part of all the action. Maybe you are an Indie Game Developer who needs some cool assets for your project, or you are an artist looking to branch out into the ever growing 3D industry.Well, you can! 3D modeling is easier than you think and you can start creating your own art within 7 days!

This course will show you the tools and skills necessary using the free Blender 3D software. And the best part is you will be creating in real time as well as learning everything you need to know on your path to 3D artistry! This course will take you from A-Z whether it be for movies, games, or 3D printing. It is up to you to decide! If you want to learn Blender and make headway in the 3D modeling world, then this course is for you!

AUDIENCE

This course will give any beginner the necessary skills and knowledge to create their own 3D projects with Blender. You don't need to have any previous experience in 3D modeling, but if you do, then this course is a great way to get you started with Blender. This course is for anyone who wants to learn Blender by creating concrete projects.

KEY FEATURES

- No prior Blender experience needed! This course will take you from the beginning to the end in real time and with usable examples in just 7 days!
- With step by step videos and instructions, you will be creating 3D art in minutes.
- Apart from the loads of content, you will export and import your 3D art into Unity 3D, a professional gaming engine that is free to use!

APPROACH

Step by step we will create 3D art. With simple instructions and visualization of everything happening on the screen, you can easily follow along and absorb the content. Each section will have about 30 minutes of learning and then an exciting assignment for you to work on. The course will be interesting and hands-on with useful tips and tricks that will help you speed up the process.

WHAT WILL YOU LEARN

1. To use Blender 3D, from installation to masterful 3D art. Step by Step from Blender to game, or Blender to 3D print, or Blender to movie screen!
2. Create the Base Mesh for the objects you want to create.
3. Sculpt using Multires modifier and also Dynamic Topology sculpting and understand the pros and cons of both methods
4. Importance of Re-Topology as this is especially important in the Gaming Industry
5. Unwrap and Texture your new 3D model by bringing it to life with some color!
6. Rig a character to prepare it for animation. Give it some bones!
7. Exporting and creating Texture maps to bring your creation from Blender 3D to the world!

ABOUT THE AUTHOR

Brantley has been a game and computer enthusiast since he could read, maybe even a little before that. It has been a few years since he branched out and has been trying to do what he loves full time, which is, create Games.

He successfully created and published his first 2D game, in the App store, early 2018. Since then, he has been working on a 3D game . He found another love of his, creating 3D art for the game! He also owns his own photo booth company and works a lot with photo editing software (IE photoshop, GIMP) which when used hand in hand with 3D modeling software they become quite the power house.

You can find him on LinkedIn and check out his 2D game, Farting Frankie, on the app store!

SUMMARY OF CONTENTS

COURSE ROADMAP

DAY ONE – INTRODUCTION, SETTING UP, AND NAVIGATION IN BLENDER 3D

Step by Step on Downloading and Installing Blender 3D. Also we will dive right in with basic navigation, Hotkeys, and your first look at base shapes and creation.

- **Download and Installation of Blender 3D software**
    - Introduction to the course and a little about me, the author. Quick guide on downloading and installing the Blender 3D software.
- **Setup of the Blender 3D software, setting preferences**
    - Setup and Initial overview of the software. In this video we will also setup preferences and learn about Blender Add ons that are available.
- **Download and Installation of Unity 3D Game Engine**
    - Download and Install of Unity 3D for the bonus material at the end of the course
- **Learning Navigation in Blender**
    - Learning to move around in the Blender 3D world. First introduction to HotKeys and Shortcuts that make life easier.
- **Assignment**
    - Using Basic spherical shapes, build a small universe with Planets. Make a bigger sphere in the middle for the sun, and some different size spheres around it at varying distances. This is to cement your skills in bringing shapes into your scene and manipulating them with scaling and position. Be as creative as you want. (5 - 10 minutes)

DAY TWO – CREATING THE BASE MESH

The beginning of our first base mesh project.

- **Creating your first Base Mesh**
    - The beginning of the base mesh for the Lego Motorcycle. Learning how to start building an object with base shapes.
- **Finishing the Base Mesh**
    - Completing the Base Mesh for the Lego Motorcycle. Adding finishing touches and learning to join and unjoin individual pieces. Begin the sword base mesh to give the student more experience.
- **Finishing the Sword's Base Mesh**
    - Work on the Sword 3D object. This will allow the user to get more experience and see different methods with a different object.
- **Assignment**
    - Using basic shapes, build a small house. This should take minimal manipulation of the cube and other basic shapes. Give it a door and some windows. This is to build upon your skill of manipulating shapes with the Extrude tool etc. Again, be as creative as you want. Be sure to save your work, we will build on it later in the course. (30 minutes)

DAY THREE - SCULPTING BLENDER MODELS

Adding that beautiful, eye catching detail we love. Multi-Res vs. Dynamic Topology sculpting methods available in Blender 3D.

- **Sculpting to add detail to the Base Mesh**
    - A quick overview of the 2 methods in Sculpting (MultiRes and Dynamic Topology).
- **MultiRes Sculpting**
    - Finish up the details on the Base Mesh. Adding some flare and fun to the project!
- **Dynamic Topology Sculpting**
    - More in depth on Dynamic Topology so the student has a strong knowledge of both sculpting methods.
- **Assignment**
    - Using your new found skills in sculpting, add some detail to your house that you made in your previous assignment. Using either MultiRes or Dynamic Topology give some detail to the door and walls. Maybe some grooves to make them appear more like wood. Be as creative as you want and make sure to save your work. (30 minutes)

DAY FOUR - USING RETOPOLOGY ON YOUR MODEL

Learn methods of retopology and how it is necessary for certain aspects of 3D modeling. It is especially necessary for the gaming industry.

- **What is Retopology and why is it important?**
    - Overview of what Retopology is and why it is important. Begin the retopology of the Sword.
- **Finish Retopology**
    - Finish the retopology of the sword and have the student learn why it is important to have low poly meshes for baking.
- **Baking the Normal Map and Ambient Occlusion Map**
    - Instruct the student on baking a Normal and Ambient Occlusion map for rendering purposes with other programs. Instruct how these maps will export to other programs and can be edited with photo software as well.
- **Assignment**
    - Take your now sculpted house with all the fine detail and use your retopology skills to do just that, retopologize! This exercise will make you more comfortable with the methods of retopology. After you finish, bake a Normal map. (30 - 45 min)

DAY FIVE - TEXTURING MODELS

Unwrapping and texturing our models. Bringing them to life with color!

- **Unwrapping the Sword**
    - How to unwrap and prepare the sword for texturing without stretching.
- **Adding color to the sword and detail**
    - Coloring the sword and adding details to add to the realism of the object and bring it more to life.
- **Baking the final Color Map**
    - How to bake the color map and add it to the Normal and Ambient Occlusion maps for a full asset package.
- **Assignment**
    - Now that you have a detailed hi res house as well as a retopologized low res house. Take the low res house and unwrap it. After unwrapping it, add some color with your new texturing skills! Is your house going to have a bright red door? Maybe you don't have a door at all and instead you have a dark metal portcullis! Make it fun and interesting for you! (30 - 45 min)

DAY SIX - CHARACTER RIGGING (30-45 MINUTES)

With a pre-made character we will now work on the rigging and adding bones to our character object. This allows for animation and working with the object's movement.Work on rigging a character and preparing it for animation. Give that guy some bones!

- **Why we need rigging and its purpose for Animation**

    - Adding bones to the character and applying weight throughout.
- **Finish with the rigging**
    - Finish the bones needed in the character and the weight adding.
- **Assignment**
    - Using either your own character that you have created or a pre-made character, I will provide a link to download the pre-made character I used in the tutorial, add some bones to them! This is essential for the animation process, as well as using characters you create in the gaming world! Go ahead and create their whole rig to further develop your rigging skills. (30 - 45 min)

DAY SEVEN - EXPORTING MODELS

We will now learn the different exporting methods within Blender 3D and how to know which ones you want to choose and use. Baking textures for exporting as well as the different exporting file types. Bonus material on Importing into Unity 3D.

- **Exporting 101**
    - Exporting the maps and the object. How to know what file types to use and why.
- **Bonus Material - Exporting to Unity 3D**
    - Exporting the Sword into Unity 3D along with its Maps.
- **Assignment**
    - Take either an item you created on the side or any of the items made during this course and export it and it's maps (Normal Map, Ambient Occlusion Map, Color Map). Once you have the object and it's maps exported, open up Unity 3D and import them into the scene. This will develop your knowledge and skills with exporting and importing between different programs. When collaborating or wanting to share your work, this skill is essential. I want you to be capable of sharing your amazing work with the World! (10-20 min)

SETUP AND INSTALLATION

Minimum Hardware Requirements For Blender 3D

For successful completion of this course, students will require the computer systems with at least the following:

- OS: **Windows Vista** and above, **mac OS 10.6** and above, **Linux**
- Processor: 32-bit dual core 2Ghz CPU with SSE2 support
- Memory: 2 GB RAM
- Storage: 157MB of free space

Recommended Hardware Requirements For Blender 3D

For an optimal experience with hands-on labs and other practical activities, we recommend the following configuration:

- OS: **Windows Vista** and above, **mac OS 10.6** and above, **Linux**
- Processor: 64-bit quad core CPU
- Memory: 8 GB RAM