

Overview

This guide steps through installing the software bundle for 3D Printing & Modeling. The bundle includes Blender – a professional, and open source 3D modeling and animation program used to produce many large-scale & detailed projects in the technological world.

Because installation and verification can take up to forty-five minutes, we recommend installing the necessary software before students begin the course or plan to devote the first course session to installation.

Contents

System Requirements	1
Frequently Asked Installation Questions	2
Download the Course Software Bundle.....	2
Verify the Installation	3
How to Download Bonus Materials	4
Blender and 3 rd Party Sites	5
Support	6

System Requirements

Important!

Because students must access their saved project files from one session to the next, students need:

- Access to the same computer each session
- To be able to save files to the desktop

Hardware

- PC or Mac (not tablet or Chromebook)
- Windows 10, 8, 7, or Vista, or Mac: OS 10.8 or higher, 64-bit (after 2008)
- CPU: Intel(R) Pentium(R) N3530 (or better)
- 4 GBs of RAM
- 7 GBs free disk space

Graphics

- GPU: (Integrated) Intel HD Graphics (Bay Trail) or Radeon HD 6230 (or better)
- GPU: (Discrete) GeForce 710 or Radeon HD 6450 (or better)
- Graphics card must have OpenGL 3.2 compatible graphics with 1 GB RAM (or better)
- Using a monitor that allows for at least a 1280 x 768 resolution

Network

- Speeds of at least 1 mbps

Other

- Headphones
- Mouse w/ scroll wheel

Frequently Asked Installation Questions

How long will it take to complete the installation?

The installation process for the 3D Printing & Modeling software can take up to forty-five minutes, depending on the internet connection.

What if the student won't have the same computer every day?

The software bundle needs to be installed on all computers the student may use. Additionally, student projects will need to be moved from the last computer they worked with to the new computer each time.

What if students want to work on their projects from another computer? / How can students ensure they have access to their project files?

Contact Apex Learning support. We will work with you to find a suitable method of moving projects between computers.

What if we need to save student work on Google Drive, OneDrive, or a network storage location?

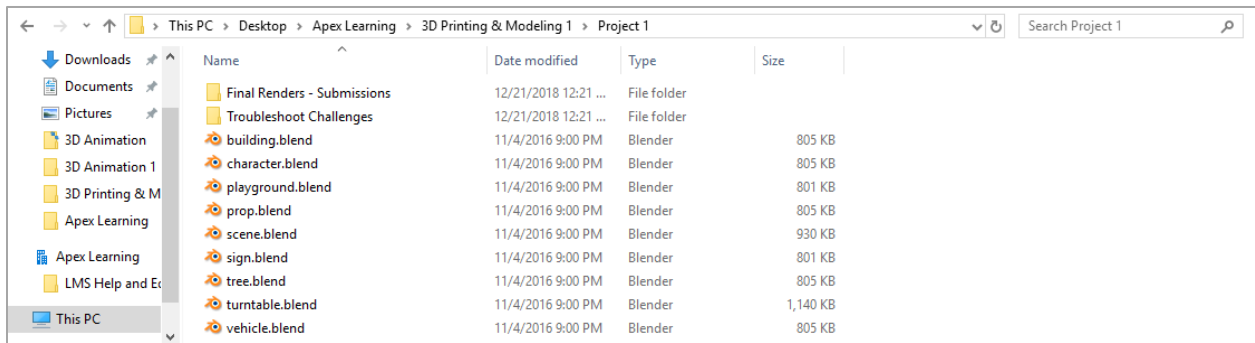
Contact Apex Learning support. For the 3D Printing & Modeling course, saving student project files in an alternative storage location is possible, and is a viable option if you have a "Deep Freeze" system set up or if you prefer students not save files to local storage. With that said, we'll want to walk you through all the files that will need to be saved on the network storage, or cloud storage, location in order for the student to be able to work properly.

Download the Course Software Bundle

Students can download the software bundle from the first page of the course (Unit 1 Overview).

If an administrator will install the software, follow these steps.

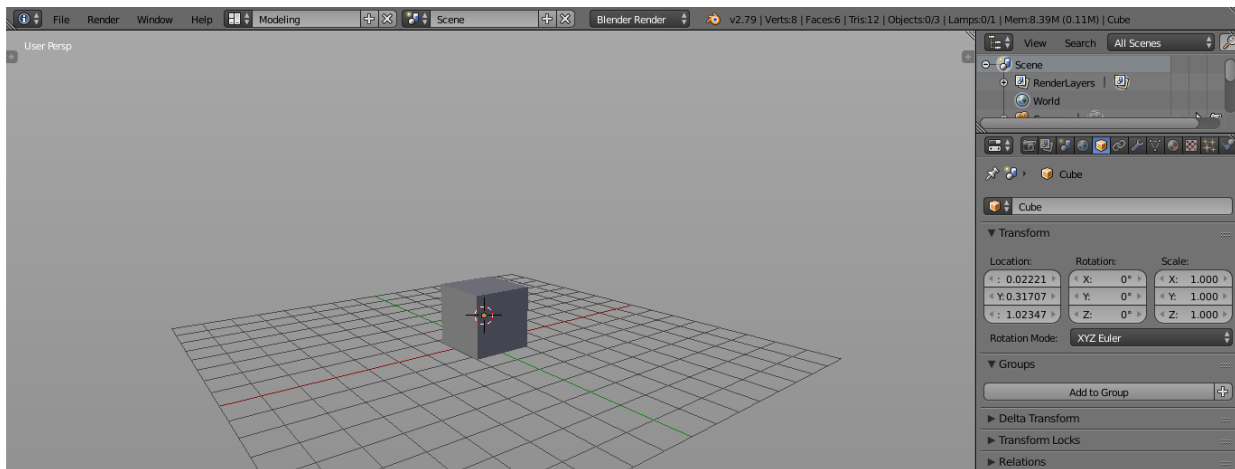
1. Download Blender and the rest of the course software:
 - PC installer- <https://downloads.apexlearning.com/3P1/3P1-Course-10.1.1.exe>
 - MAC installer- <https://downloads.apexlearning.com/3P1/3P1-Course-10.1.1.dmg>
2. Install the software on the computer the student will be using.
 - a. Run Installer once the download completes.
 - b. When the installer window appears, click the *Next* button.
 - c. In the following window, click the *Next* button to begin the installation process.
 - d. Close the "Successful Install" Dialog window.
3. Verify content
 - a. Navigate to *Apex Learning > 3D Printing & Modeling 1 > Project 1* folder on the desktop.
 - b. Validate that you see the following files & folders: *Final Renders – Submissions, Troubleshooting Challenges, building.blend, character.blend, playground.blend, prop.blend, scene.blend, sign.blend, tree.blend, turntable.blend, and vehicle.blend.*



- c. Launch Blender by double-clicking the *character.blend* file.

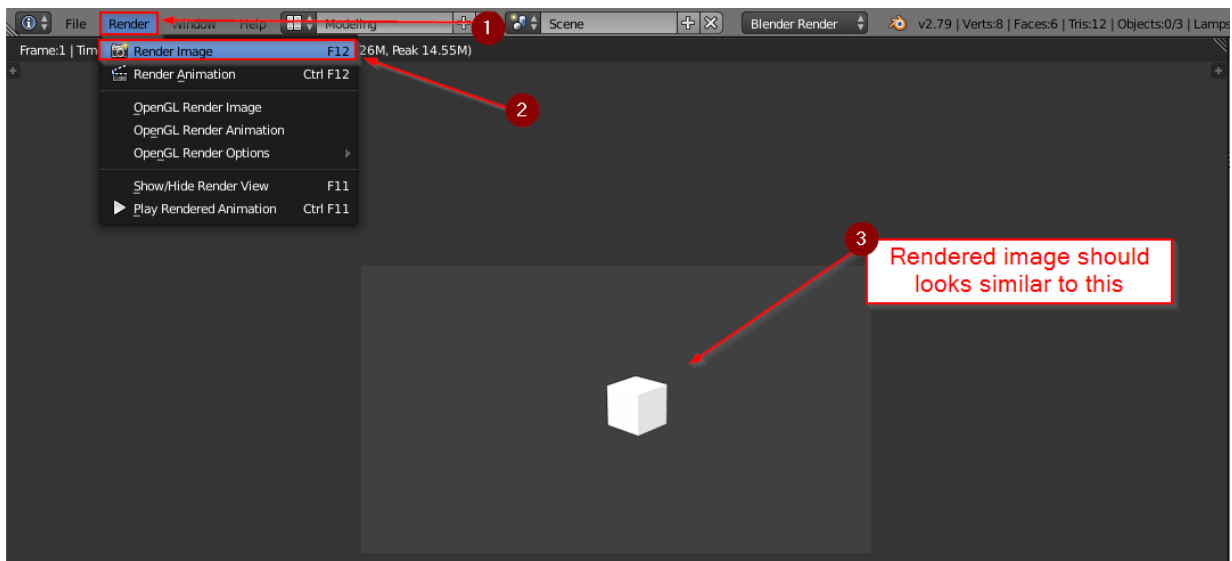
Note: Once you double-click *character.blend*, a console window will appear briefly before Blender opens. You may see a message regarding the “Hz” value not being set to “44100”. Disregard this message; it doesn’t affect how the course software functions.

- d. After the *character.blend* file opens in Blender, you should see a basic 3-D grey cube.



Verify the Installation

1. Click *Render > Render Image* on the top toolbar in Blender. You should see an image of a white cube appear similar to the example below:



- To close Blender, click the red **X** in the top right corner of the Blender window. In the popup window that appears, click the OK button. The above steps were performed to test the installation, so you don't need to save the changes that were made.

Installation Complete! If the above steps worked, you have properly installed the software and content required for 3D Printing & Modeling.

How to Download Bonus Materials

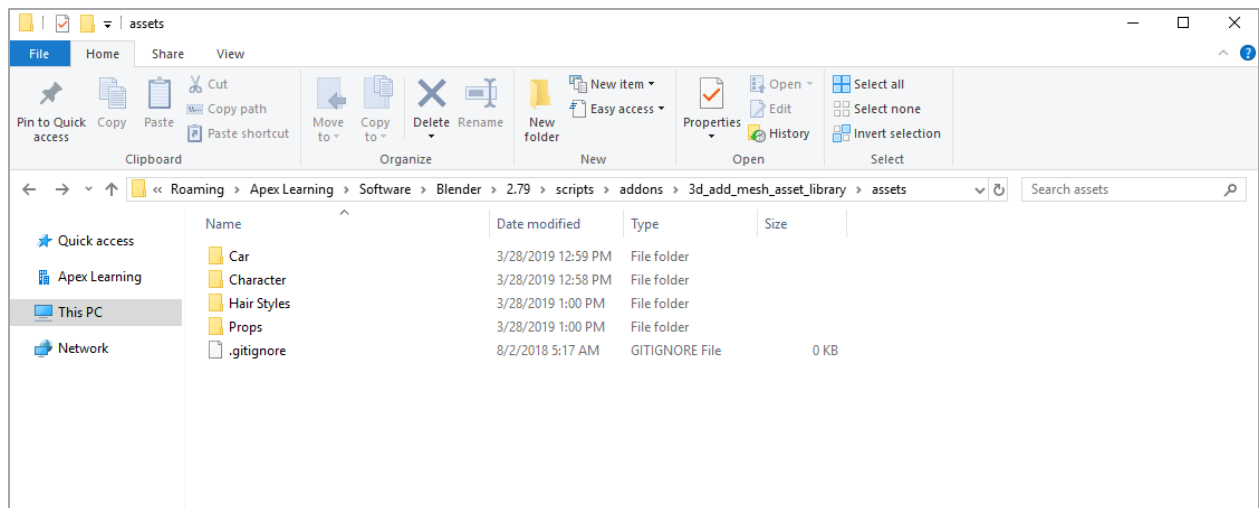
Explore activities contain bonus materials that students may download from within the course.

Should you wish to install this material beforehand, follow these steps:

- If open, close Blender by clicking the red **X** in the top right corner of the Blender window.
- Download the Bonus Material installers from the links below.

File	MAC	PC
Points Store 1	https://downloads.apexlearning.com/3P1/3P1-Points-Pack-1-10.1.1.dmg	https://downloads.apexlearning.com/3P1/3P1-Points-Pack-1-10.1.1.exe
Points Store 2	https://downloads.apexlearning.com/3P1/3P1-Points-Pack-2-10.1.1.dmg	https://downloads.apexlearning.com/3P1/3P1-Points-Pack-2-10.1.1.exe
Points Store 3	https://downloads.apexlearning.com/3P1/3P1-Points-Pack-3-10.1.1.dmg	https://downloads.apexlearning.com/3P1/3P1-Points-Pack-3-10.1.1.exe
Points Store 4	https://downloads.apexlearning.com/3P1/3P1-Points-Pack-4-10.1.1.dmg	https://downloads.apexlearning.com/3P1/3P1-Points-Pack-4-10.1.1.exe
Points Store 5	https://downloads.apexlearning.com/3P1/3P1-Points-Pack-5-10.1.1.dmg	https://downloads.apexlearning.com/3P1/3P1-Points-Pack-5-10.1.1.exe

- Run them one-by-one to install the bonus material.
- Verifying that the Bonus Material has installed properly is a bit trickier to do with this course, however, I've listed a few steps following this that you can use to make sure everything installed properly.
 - Put "%appdata%" in your Runline (without quotes) and hit enter. If you're unfamiliar with Runline, you can pull it up on Windows 10 by *right-clicking* the start button and selecting **Run** from the popup options. Additionally, you can press the Windows Key + R to bring up a Run window.
 - Once inside, you'll browse to the **Appdata > Roaming > Apex Learning > Software > Blender > 2.79 > scripts > addons > 3d_add_mesh_asset_library > assets** folder.
 - As long as you see the options shown below, the Bonus Material should also be available in Blender for the student.



Blender and 3rd Party Sites

Students using Blender may discover options to navigate away from the tool to related websites via the help menu. To ensure students do not gain access to online forums or other potentially questionable content and remain focused on the work they need to complete, we suggest blocking access to the following URLs:

- <https://devtalk.blender.org/>
- <https://wiki.blender.org/wiki/Communication/Contact>
- <http://freenode.net/>

There is also a large global Blender community. This site <https://www.blender.org/community/> provides access to multiple URLs:

- <https://blender.stackexchange.com/>
- <http://blender.today/>
- <https://blender.chat/>
- <https://rightclickselect.com/>
- <https://www.reddit.com/r/blender/>
- <https://www.facebook.com/groups/BNPRandFreestyle/>
- <http://bbug.be/>
- <https://blenderartists.org/>
- <https://www.blendernation.com/>
- <https://discord.gg/blender>
- <https://plus.google.com/communities/115632807910317842467>
- <https://www.blendswap.com/>
- <https://www.facebook.com/groups/2207257375>
- <http://www.blendercn.org/>
- <http://www.bgteach.com/>
- <http://dbc-3d.nl/>
- <http://blenderlounge.fr/>
- <http://blenderclan.tuxfamily.org/>
- <https://www.nurembug.org/>
- <https://www.meetup.com/Blender-3D-Meetup-Munchen/>
- <https://www.blendpolis.de/>
- <https://www.facebook.com/groups/BlenderGrcece/>
- <http://forum.blender.org.il/>
- <https://www.blender.it/>
- <https://blender.jp/>
- <https://www.facebook.com/groups/blender3d.msia>
- <http://polskikursblendera.pl/>
- <https://www.facebook.com/groups/blenderpolska/>
- <http://www.blender.pl/>
- <https://blender.community/c/hoje/>
- <http://forum.blender-pt.com/>
- https://vk.com/blender_3d
- <http://blender3d.org.ua/>
- <http://www.blenderhoy.com/>
- <http://www.g-blender.org/>
- <https://www.facebook.com/groups/HubLa/>
- <https://www.facebook.com/groups/blenderpo/>
- <https://www.facebook.com/groups/blendeamer/>
- <http://www.blendertr.com/>

Support

Online Help is available to site coordinators, teachers, and students by signing in to Apex Learning and selecting Help in the main menu.

The Apex Learning Support team is available Monday – Friday, 7:00 AM – 9:00 PM Central Time.

- 1-800-453-1454 option 2
- support@apexlearning.com
- Chat is available via online Help