3D Printing Workshop,
Oregon State University, 2014

3D Printing Resources

Ready-made models

- Thingiverse: https://www.thingiverse.com
- 3D Warehouse (Sketchup): https://3dwarehouse.sketchup.com/
- Smithsonian: http://3d.si.edu/browser
- Autodesk's 3D Model Library: http://www.123dapp.com/3d-model-library

Free 3D modeling software

- Autodesk 123D: http://www.123dapp.com/
  Autodesk has a number of free software options and apps.
- Blender: http://www.blender.org/
  Focused on artistic aspects of 3D modeling, Blender is used by 3D animators, game developers. To get a printable 3D model, you need to install the 3D Printing Toolbox. Objects need to have an inside and an outside with no holes.
  http://wiki.blender.org/index.php/Extensions:2.6/Py/Scripts/Modeling/PrintToolbox
- Open SCAD: http://www.openscad.org/
  Focused on creating 3D parts to specifications (machine parts).
- Sketchup Make: http://extensions.sketchup.com/
  Easy to use
- Tinkercad: http://www.tinkercad.com Drag and drop interface!

Places that will print your models (for a price)

Signing up is free – you can design things in their software and get quotes on how much it would be to have it printed in various materials.

- Shapeways: http://www.shapeways.com/
- Ponoko: https://www.ponoko.com/
- imaterialise: http://i.materialise.com/
- Sculpteo: http://www.sculpteo.com/en/
- 3D Hubs (find a printer near you): http://www.3dhubs.com/

Further learning

Almost all of the free software also has free online tutorials. It takes a few months or more to become an expert with one of the modeling packages, so don't be discouraged if you don't learn this instantly!

- Tinkercad tutorials (quests) https://tinkercad.com/quests/
- Autodesk 123d app how-to's: http://www.123dapp.com/howto/design
- Shapeways 3D printing tutorials http://www.shapeways.com/tutorials
- Blender tutorials: http://www.blender.org/support/tutorials/
- Sketchup video tutorials: http://www.sketchup.com/learn/videos