

3D Printing



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Our Scenario: Obtaining a 3D Printer

- Funded through student Technology Fee request
 - Collaborative request (professors + technology professionals)

Our Process: Handling Jobs & Print Details

- Requests made via online form
- Use ticketing system (ServiceNow) to manage requests
- Job is processed
 - File obtained → Estimate to patron → Confirmation to begin job → Job is printed → Job gets a bath → Patron is notified of completion → Patron picks up printed item
- Challenges:
 - This process assumes users have quality 3D files
 - Knowledge of 3D modeling is needed if trying to build something from scratch

Next Steps: Integration into Courses

- Not just for art & design!
- Encourage use in multiple disciplines

Discuss:

Where have you
seen 3D printing
integrated into
coursework?

Examples of 3D Printing in Classroom

- Geography
 - Topographical/physical maps
- Geometry
 - Geometric shapes taught; applied by creating 3D models of buildings using them
- Chemistry
 - Molecular models
- Anthropology
 - Bones/Skulls from remains that are otherwise hard to access

Try: Software
used to design 3D
print files.

Software & Apps for 3D printing



MeshLab

Places to find 3D objects

[Thingiverse](#)

[Grabcad](#)

[Tinkercad 3D Design Gallery](#)

[Yeggi](#)

[Pineshape](#)

[STL Finder](#)

Try: Create a lesson plan or create a plan to talk with faculty or teachers.

Resources

[NMC Horizon Report 2015: K12](#) (See section on 3D printing)

[3D Printing in the Classroom Guide by Kathy Schrock](#)

[Thingiverse Education](#)