



YOU CAN 3-D

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PANEL TAKEAWAYS

1. Overview of the Snell Library 3D Printing Studio
2. Overview of the 3D Printing Process
3. How to use the 3D Printing Studio or Maker Technologies in your courses

3D PRINTING STUDIO

2ND FLOOR OF SNELL LIBRARY

Established in 2013

Open to Northeastern Community

Ten 3D printers, 4 technologies

Laser cutter

Two 3D scanners



3D PRINTING STUDIO

2ND FLOOR OF SNELL LIBRARY

Full Time Coop Student

Part-time student staff

Average 1-3 projects a day

Average project cost of \$10-15

Three project sources:

1. Personal projects
2. Coursework
3. Research projects



WHAT CAN YOU DO IN THE 3D PRINTING STUDIO?

1. Guest Lecture

The coop or I will visit your class to provide information to your students about the technologies and processes in the studio.

2. Studio Tour

Your students visit the studio for a short tour and/or demonstration

3. Assignment/Project

Work with me to create an assignment for use in your course

ADVANTAGES OF 3D PRINTING

Can be faster than standard manufacturing processes

Complexity is free

- But no real economy of scale

Cheaper for smaller quantities

- Minimal setup and tool costs

“Finished parts”

- Trends are showing an increasing number of AM parts being the finished part and not the prototype

3D PRINTING STUDIO PROCESS

1. Idea for an object, consult with 3D Printing Studio
2. Design the object in 3D (usually an STL)
3. Submit it to the 3D Printing Studio via online form
4. Receive quote and time estimate
5. Adjust the build settings in machine software (scale, size, orientation, supports, etc.)
6. Build the object on the printer
7. Post-process the object
8. Receive email for pick-up
9. Pick-up and pay for object

EXAMPLES

Fused Deposition Modeling (FDM): Extruded Plastic

Stereolithography (SLA): UV Cured Plastic

Powder Printing (3D Printing): Plaster Powder glued in layers and colored

Polymer Jetting (Polyjet): UV Cured Plastic sprayed by inkjet heads