

FALL 2023 SESSION 2 - BIOMATERIALS LAB - LAB ASSIGNMENTS

DM-GY 9201 D I Special Topics in Integrated Design & Media I Fall 2023

Fridays 11am-1:50pm, September 6th to October 20th, 2023

ASSIGNMENTS

In this class, we will be performing hands-on experiments during and outside of class time.

The class is structured around two Experiments and one Prototype.

The Experiments will use the materials and protocols outlined [here](#).

Each step of the Experiments should be documented in your Lab Notebook using the provided template.

LAB NOTEBOOK ENTRIES

Each step of the Experiments, as well as prototype fabrication should be documented in your Lab Notebook using the provided template.

PROTOTYPE

Your design project will focus on designing a unit shape that, when produced in multiples can be assembled into a large, architectural scale structure. Examples of such projects can be found in the Week 1 slides. Throughout the semester, you will perform design research, model the shape and its assembly, fabricate a model and iterate on it, then finally build a set of molds from it and grow mycelial materials in them. You will assemble the final mycelium structure and document it for your final project.

Prototype Assignment 1: Design research presentation

Prepare 5 slides of inspiration for your design project.

These slides should cover visual material that communicates aesthetic, material, functional and assembly inspiration.

Prototype Assignment 2: sketch and model presentation

Building on your previous assignment, sketch your shape design. Make a 3D model of how it would be assembled. Generate some photoshop / renderings to illustrate how it would look at scale.

Prototype Assignment 3: physical shape presentation

Build a positive for your shape design. Document your material choices. Discuss how you anticipate it to perform under thermoforming.

Prototype Assignment 4: Shape iteration

Iterate on your shape design. Build at least two units to test how it would assemble.

FINAL PRESENTATIONS

Prepare a 20 min presentation to showcase your final design. Cover your inspiration, process, iterations, final outcomes and renderings at scale.