Progress Reports are graded on the (i) write-up of what has been accomplished and (ii) the amount of said progress on the overall project.

1. Group Number and Title: Group 11 – Sustainable Polymers

2. Week 3/16 and Date: 2/7/2025

Understand	Synthesize	Ideate	Prototype	Implement
Explore	Debrief	Brainstorm	Create	Support
Observe	Organize	Propose	Engage	Sustain
Empathize	Define	Plan	Evaluate	Evolve
Reflect	Interpret	Narrow Concepts	Iterate	Execute

3. Provide a brief list of activities that were done and their corresponding HCD space(s) and subspace(s) (add rows if necessary):

Activity	HCD space(s)	HCD subspace(s)
Interviewed Sarah Saeed	Understand	Observe/Empathize
Interviewed Professor Guironnet	Understand	Explore/Reflect
Defined objectives, goals, constraints, and boundaries	Synthesize and Ideate	Organize, define, propose, plan
Solvent Test	Prototype	Evaluate
Obtained supplies	Prototype	Create
Cadded and printed extrusion part	Prototype	Create
Set up degradation environment	Ideate	Plan
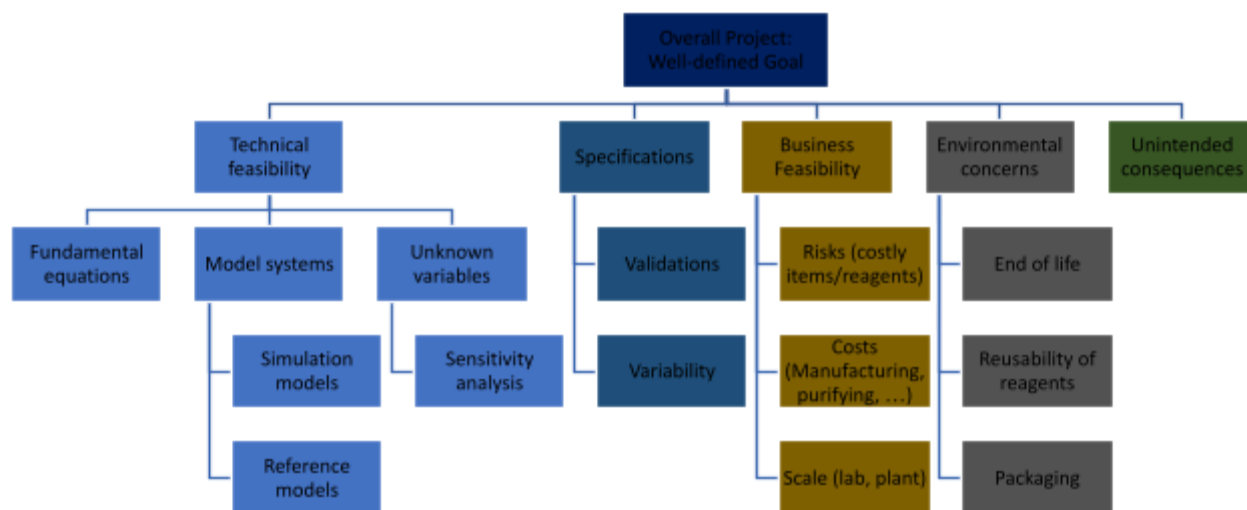
4. What branches/blocks were work focused on this week?

   ● Technical Feasibility - Model Systems

5. What was accomplished? (4-5 bullet points, include data/charts if applicable)

   ● Interviewed Core stakeholder
   ● Interviewed indirect stakeholder (industry expert)
   ● Obtained all supplies
   ● Started setting up degradation environment
   ● Cadded and 3D printed first melt indexer extrusion part
   ● Solvent tests with PLA and PEO (300000Da) in acetone (AC), acetonitrile (AN), tetrahydrofuran (THF), and chloroform (CH).

6. What challenges occurred that were overcome? (3-5 bullet points)

   ● The 3D printers at Jackson Innovation Studio (JIS) were of low accuracy (0.2 mm), but our part required at least 0.1 mm accuracy. We are trying to solve this problem by changing the dimensions of the CAD file and checking with JIS to see if they have better accuracy.

7. What challenges are still outstanding? (2-5 bullet points)

   ● Training on electrospinner
   ● Finalizing degradation environment
   ● Testing sample synthesis using melt extruder