College Apparel of the Future

*A Design Thinking Project*

# Project Overview

**LINK TO DEFINING STEP:** [**https://www.canva.com/design/DAG1C5Dg2Lk/St\_ZdO4HvEVyDXHquLtGaQ/edit?utm\_content=DAG1C5Dg2Lk&utm\_campaign=designshare&utm\_medium=link2&utm\_source=sharebutton**](https://www.canva.com/design/DAG1C5Dg2Lk/St_ZdO4HvEVyDXHquLtGaQ/edit?utm_content=DAG1C5Dg2Lk&utm_campaign=designshare&utm_medium=link2&utm_source=sharebutton)

**LINK TO EMPATHIZING STEP:** [**https://www.canva.com/design/DAG1C2Bj0ps/56pPocXA8U0uecR7p\_bclQ/edit?utm\_content=DAG1C2Bj0ps&utm\_campaign=designshare&utm\_medium=link2&utm\_source=sharebutton**](https://www.canva.com/design/DAG1C2Bj0ps/56pPocXA8U0uecR7p_bclQ/edit?utm_content=DAG1C2Bj0ps&utm_campaign=designshare&utm_medium=link2&utm_source=sharebutton)

**LINK TO TESTING REPORT:** [**https://www.canva.com/design/DAG1C9VbWfY/GQTnEbNZlI-6gjvpVkaGnA/edit?utm\_content=DAG1C9VbWfY&utm\_campaign=designshare&utm\_medium=link2&utm\_source=sharebutton**](https://www.canva.com/design/DAG1C9VbWfY/GQTnEbNZlI-6gjvpVkaGnA/edit?utm_content=DAG1C9VbWfY&utm_campaign=designshare&utm_medium=link2&utm_source=sharebutton)

**LINK TO FINAL PRESENTATION:** [**https://www.canva.com/design/DAG1DH4ZdFc/-I4WZhGWEeHLj405\_3uGFg/edit?utm\_content=DAG1DH4ZdFc&utm\_campaign=designshare&utm\_medium=link2&utm\_source=sharebutton**](https://www.canva.com/design/DAG1DH4ZdFc/-I4WZhGWEeHLj405_3uGFg/edit?utm_content=DAG1DH4ZdFc&utm_campaign=designshare&utm_medium=link2&utm_source=sharebutton)

This project was completed as part of a design thinking course and challenged my team to envision **inclusive, sustainable college apparel of the future**. Using the full design thinking process—**Empathize, Define, Ideate, Prototype, and Test**—we created a final garment that addressed diverse user needs while showcasing creativity, functionality, and sustainability.

The project demonstrates my ability to conduct **UX research**, synthesize insights, and translate findings into tangible design solutions.

NOTE: I wasn’t able to retrieve the slide shows for Steps 3 and 4, but they were done similarly to Steps 1 and 2.

# USER GROUPS

1. Physical accessibility needs
   1. wheelchair
2. Life stages/ unique functional requirements
   1. Caregivers & Young children (end-of-life)
      1. Focus: How do caregivers manage caring for these individuals in certain situations, maybe in public?
      2. Consider: What essential bags do they need to carry around? How important is it for tools/things in the bag to be quickly accessible?
         1. Moveable clothing…yeah
         2. Daily process & how clothes get damaged & dirty.
3. Physical environments
   1. Manual labor
      1. In the summer heat all-day
      2. Physically demanding
      3. Emotional-Support & Aesthetics
4. Cultural diversity
   1. Islam modesty-wear/ Indian culture on campus
      1. Could go to campus event for Indian culture or another one
      2. religious/cultural practices

# Step 1: Empathize – UX Research Foundation

The project began with **in‑depth empathy research** across four distinct user groups, each representing a unique design challenge:

* **Accessibility Needs** (e.g., wheelchair users, elderly individuals with mobility limitations)
* **Functional Requirements** (e.g., athletes, students with physically demanding routines)
* **Environmental Challenges** (e.g., outdoor workers, delivery personnel)
* **Cultural & Lifestyle Diversity** (e.g., modest fashion, cultural attire, digital nomads)

## Research Methods Used:

* **Observation:** Quietly studied how users interacted with clothing in real contexts (e.g., mobility challenges, environmental barriers).
* **Asking Questions:** Conducted short, respectful interviews to uncover pain points and overlooked needs.
* **Immersion:** Simulated user experiences (e.g., navigating spaces with restricted mobility, layering clothing for harsh weather).

## Key UX Research Outcomes:

* Identified **pain points** such as difficulty with closures, lack of adaptability, and discomfort in extreme conditions.
* Discovered **emotional needs** like dignity, cultural expression, and confidence.
* Built a foundation of **user‑centered insights** that guided every subsequent design decision.

# Step 2: Define – Synthesizing Insights

From empathy research, we synthesized findings into **core user needs** and **pain points**.

* **Needs:** Clothing that is adaptable, easy to wear/remove, culturally respectful, and environmentally durable.
* **Pain Points:** Limited accessibility in mainstream apparel, lack of inclusivity in sizing and cultural considerations, unsustainable material use.

We then framed **“How Might We” (HMW) questions** to guide ideation, such as:

* *How might we design apparel that is easy to put on and remove for users with mobility challenges?*
* *How might we create clothing that adapts to multiple environments without sacrificing comfort?*

# Step 3: Ideate – Generating Solutions

We used two structured ideation methods:

* **Crazy 8s:** Each team member sketched 8 ideas in 8 minutes, generating a wide range of concepts.
* **SCAMPER:** Refined top ideas by exploring substitutions, combinations, adaptations, and simplifications.

Through voting and refinement, we narrowed to **two final apparel concepts** that best addressed user needs and HMW questions.

# Step 4: Prototype – Making Ideas Tangible

We built **two scaled prototypes** using mannequins and **recycled materials** (old fabrics, buttons, plastic packaging).

* **Deliverables:**
  + Front, back, and side views of each prototype.
  + Clear material labeling.
  + Documentation of build process with photos and notes.

**Reflection:** Prototyping revealed practical challenges (e.g., material durability, closure mechanisms) and highlighted opportunities for improvement.

# Step 5: Test – Gathering Feedback

We tested prototypes with individuals aligned to our user groups.

* **Methods:** Demonstrated garments, observed reactions, and asked structured questions.
* **Key Insights:**
  + Users valued adjustability and ease of wear.
  + Some features were confusing or unnecessary.
  + Feedback guided us in merging the two prototypes into a **single final design**.

# Step 6: Final Garment Production & Live Demonstration

The final stage produced a **full, wearable garment** modeled live.

* **Features:**
  + Inclusive closures and adjustability for accessibility.
  + Durable, sustainable materials.
  + Cultural sensitivity and functional adaptability.
* **Live Demo:** Modeled by a teammate, showcasing wearability, inclusivity, and sustainability.
* **Mini Slide Deck:** Supported the demo with sketches, photos, and reflections.

## UX Research Highlights

This project demonstrates my ability to:

* Conduct **multi‑method user research** (observation, interviews, immersion).
* Synthesize findings into **clear user needs and pain points**.
* Translate insights into **actionable design challenges (HMW questions)**.
* Validate solutions through **iterative prototyping and testing**.

# Reflection

This project strengthened my skills in **user-centered design, inclusive thinking, and sustainable innovation**. It also showcased my ability to collaborate, document processes, and present findings in a professional, engaging way.

For recruiters and companies, this project highlights my **UX research expertise** and ability to carry insights through the entire design thinking process to a tangible, functional outcome.



