

STRUCTURED INNOVATION THROUGH DESIGN THINKING

Unit 1: Design thinking for creative problem-solving:

- 1. Introduction to Design Thinking: Overview of design thinking principles and stages.**
- 2. Empathy in Design: Techniques for understanding and empathizing with users, including user interviews and persona creation.**
- 3. Storytelling as a Tool: Using storytelling to convey user needs and problem statements.**
- 4. Case Studies: Analyzing successful design thinking projects that started with empathy.**
- 5. Workshops: Hands-on activities to practice empathetic engagement with hypothetical user scenarios.**

Unit 2: Concepts for sustainable prototype development:

- 1. Basics of Recycling and Upcycling: Definitions, differences, and environmental impact.**
- 2. Triple Constraints in Product Design: Exploring how time, scope, and budget affect product development.**
- 3. Prototype Development: Step-by-step guidance on creating prototypes using upcycled materials.**

- 4. Sustainability in Design:** Discussing the importance of sustainable practices in modern design.
- 5. Practical Exercises:** Designing and building simple products using recycled materials within defined constraints.

Unit 3: Existing products focusing on market aesthetics:

- 1. Understanding Product Aesthetics:** How aesthetics influence consumer behavior and product design.
- 2. Detailed Product Analysis:** Dismantling and evaluating existing products to understand their design and functionality.
- 3. Enhancement Techniques:** Methods for improving product design, focusing on aesthetics and functionality.
- 4. Consumer Feedback:** Gathering and utilizing consumer feedback to guide redesign efforts.
- 5. Reconstruction Projects:** Students reconstruct an existing product with improved aesthetics and functionality.

Unit 4: Frameworks to create new prototypes:

- 1. Innovation vs. Invention:** Exploring the difference and focusing on innovation within existing frameworks.

2. Analyzing Market Trends: How to use market research to identify opportunities for innovation.

3. Creative Adaptations: Techniques for creative thinking and adaptation of existing products. 4.

Prototyping with Purpose: Building prototypes that address specific user needs or market gaps.

5. Case Studies and Discussions: Reviewing examples of successful innovations in existing product lines.

Unit 5: Communicate project processes and outcomes:

1. The Art of Storytelling: Techniques for crafting compelling narratives around product development.

2. Presentation Skills: Tips and strategies for effective public speaking and presentation.

3. Visual and Digital Tools: Using visual aids, digital presentations, and storytelling software to enhance communication.

4. Engaging Stakeholders: How to pitch and explain projects to different audiences.

5. Project Documentation and Feedback: Methods for documenting the development process and incorporating feedback for improvement.