Indian Institute of Technology, Kanpur
Proposal for a New Course

1. Course No. DESxxx
2. Name of the Course: ***Product Aesthetics***

Course Type: Elective (M.Des / PhD)

3. Per Week Lectures: 01 (L), Tutorial: 0 (T), Laboratory: 06 (P), Additional Hours [0-2]: 0 (A)

Credits (3*L+2*T+P+A): 9 Duration of Course: Full Semester

4. Proposing Department: Design

Other Departments/IDPs which may be interested in the proposed course:

Other faculty members interested in teaching the proposed course: Prof. Girish Lone

5. Proposing Instructor(s): Asst. Prof. Shoubhik Dutta Roy

Course Overview

This course introduces aesthetic elements and principles in the context of industrial design. Students learn to develop form and colour-material-finish (CMF) through mood-boarding, sketching, CAD modelling and physical model-making.

Course Learning Objectives

By the end of the course, students will be able to:

- Visualize and communicate three dimensional objects through freehand sketches
- Develop appreciation for aesthetically pleasing products and understand the underlying design language
- Understand how design elements and principles influence product personality
- Design impressive forms for a given product through sketches, CAD renders and physical models
- Design CMF variants for a given product with due consideration to finishing processes

6. Course Structure (13 Weeks of Lecture + Lab)

Sr. No.	**Topic Description**	Remark
Module 1: ***Product Sketching***	**Week 1 Lecture**: Introduction to sketching basic 2D shapes (with emphasis on line quality and accuracy) + Introduction to perspective	3 weeks
	Week 1 Lab: Sketching practice with continuous feedback for the above. Deliverables: Practice sheets	
	Week 2 Lecture: Sketching basic 3D objects	
	Week 2 Lab: Sketching practice with continuous feedback for the above.	

	Deliverables: Individual sheets for simple products (showing multiple views through sketches)	
	Week 3 Lecture: Sketching complex products	
	Week 3 Lab: Sketching practice with continuous feedback for the above. *Deliverables: Individual sheets for complex products (showing multiple views through sketches)*	
Module 2: ***Product Form Design***	**Week 4 Lecture**: Briefing on the product to be designed	7 weeks
	Week 4 Lab: Understanding functional requirements of the product + aesthetic analysis	
	Week 5 Lecture: Mood-board creation for form design	
	Week 5 Lab: Mood-board creation based on the given attribute	
	Week 6 Lecture: Form exploration technique and guidelines	
	Week 6 Lab: Form exploration based on the created mood-board through sketches	
	Week 7 Lecture: Form refinement	
	Week 7 Lab: Review and refinement of form sketches + foam mockups	
	Week 8 Lecture: Form finalization and detailing	
	Week 8 Lab: Final drawing + CAD modelling of the selected form	
	Week 9 Lecture: Form prototyping	
	Week 9 Lab: Prototyping the final form using a suitable process	
	Week 10 Lecture: Form visualization	
	Week 10 Lab: Rendering the CAD model + finishing the appearance prototype	
	***Assignment**: Form design concept presentation*	
Module 3: ***CMF Design***	**Week 11 Lecture**: Introduction to CMF Design	3 weeks
	Week 11 Lab: Theme selection + Mood-board creation + Palette creation	
	Week 12 Lecture: CMF Conceptualization	
	Week 12 Lab: CMF exploration through sketches and renders	
	Week 13 Lecture: Finishing Processes for CMF Design	
	Week 13 Lab: Final concept rendering and specification	
	***Assignment**: CMF design concept presentation*	
	Total Lectures	13

*Each module typically includes lectures and an activity or assignment that requires practical application of the concepts learned.

Pre-requisites: Basic aesthetic sensitivity and a willingness to go through the rigour of design exploration and refinement.

Assessment Scheme

Assignments - 50%
Mid-semester exam - 20%
End Semester exam - 30%

References (suggested readings):

1. Sketching : Drawing Techniques for Product Designers by Koos Eissen & Roselien Steur
2. Sketching : The Basics by Koos Eissen & Roselien Steur
3. Basic Sketching Techniques for the Industrial designer by Thomas Valcke
4. Product Sketches: From Rough to Refined by Andreas Parada
5. CMF Design: The Fundamental Principles of Colour, Material and Finish Design by Liliana Becerra
6. Manufacturing Processes for Design Professionals by Rob Thompson

Additional References

1. Color Trends and Selection for Product Design: Every Color Sells A Story by Doreen Becker
2. Design sketching by Erik Olofsson & Klara Sjölen
3. Drawing for Product Designers by Kevin Henry
4. Innovative Product Design Practice by Carl Liu

Dated: 05.05.2026 Proposer: Asst. Prof. Shoubhik Dutta Roy

Dated:_____ DUGC/DPGC Convener: _____

This Course is approved / not approved

Chairman, SUGC/SPGC

Dated_____