ELECTIVE MODULE FOR NORMAL (TECHNICAL) STUDENTS

Module Title: Appreciation to Product Design

Duration: 30 hours (4T 26P)

Pre-requisite: Nil

Module Objective

Students are trained on the overview of product design from imaginative concept, drawing and model making to manufacturing. The training focuses on development of form and aesthetics. Students will learn how to translate an existing product into a representational visual thru familiarization with the various mediums, rendering techniques, shading forms and freehand linear approach in drawing products.

Learning Outcomes

At the end of the module, students will be able to:

(a) Perform freehand sketching of concept
(b) Conduct design research of existing products
(c) Perform free hand sketching of physical products with details

Outline of Module Syllabus

Item	Technical Skills/Knowledge	Instructional Hours	
		Theory	Practical
1.	Explain the basic technique used in free hand sketches.	1	-
2.	Describe placement orientation and orthographic views of objects in a drawing.		
3.	Describe the various theories of perspectives and its applications. • One-point perspective • Two-point perspective • Three-point perspective • Oblique perspective • Aerial perspective		
4.	Explain the basic colour theory, colour scheme and its applications.	1	-
5.	Describe the various shading and rendering techniques.	-	-
6.	Perform freehand sketching of concept.	-	11
7.	Explain the importance and methodology used for conducting information research.	1.5	-
8.	Explain the importance of design brief.	-	-

9.	Describe the product design and development process focusing on: • Concept requirements and specifications • Concept design • Product development process • Manufacturing facilities and methods • Logistics of materials, supply and distribution.	-	-
10.	Conduct design research of existing products.	-	2
11.	Explain the principles of good design and the various key design activities.	0.5	-
12.	Perform free hand sketching of physical products with details.	-	10
	Assessment	-	3
	Total	4	26

Completion Criterion

Students will be deemed to have successfully completed the module if they score the average marks of 50 for the 3 assessments. The guidelines for the assessments are given below.

	Assessment Component	Assessment Guidelines
(i)	Assessment 1 Perform freehand sketching of concept (30%)	Marks will be awarded for the quality of sketches, correct selection of media and use of right techniques in accordance with the given requirement.
(ii)	Assessment 2 Conduct design research of existing products (20%)	Marks will be awarded for gathering the required information with the appropriate method and the proper documentation in accordance with the design requirement.
(iii)	Phase Test Perform freehand sketching of a physical product with details (50%)	Marks will be awarded for the correct orthography views with dimension & details, correct perspective and rendering.

Target Audience

Sec 3 / 4 Normal (Technical) students

Class Size

18 students per class

Duration
30 instructional hours

Certification

ITE Certification of Attendance will be issued upon successful completion of the course. ITE Certificate of Achievement will be issued upon students meeting the assessment criteria.