

# CBSE | DEPARTMENT OF SKILL EDUCATION

## CURRICULUM FOR SESSION 2021-2022

---

### **DESIGN (SUBJECT CODE – 830)**

**JOB ROLE: ASSISTANT DESIGNER**

---

**CLASS – XI & XII**

This Course on Design is intended to introduce ideas, methodologies, principles, fundamentals and skills that comprise a common knowledge base important to all design disciplines. These fundamentals will foster a multidisciplinary design experience among students and will prepare them to move to the next level. It will provide the students with foundation and fundamentals of skills in design. The course will benefit applicants who have little or no training or experience in art and design and who wish to begin formal education in this field.

#### **SCHEME OF UNITS**

This course is a planned sequence of instructions consisting of units meant for developing employability and vocational competencies of students of Class XI opting for skill subject along with other education subjects.

The unit-wise distribution of hours and marks is as given on the next page:

**DESIGN (SUBJECT CODE - 830)****CLASS – XI (SESSION 2021-2022)**

Total Marks: 100 (Theory-50 + Practical-50)

	TERM	UNITS	NO. OF HOURS for Theory and Practical		MAX. MARKS for Theory and Practical	
<b>PART A</b>	<b>Employability Skills</b>					
	<b>Term I</b>	Unit 1 : Communication Skills-III	10		5	
		Unit 2 : Self-Management Skills- III	10			
		Unit 3 : ICT Skills- III	10			
	<b>Term II</b>	Unit 4 : Entrepreneurial Skills- III	10		5	
		Unit 5 : Green Skills- III	10			
		<b>Total</b>	<b>50</b>	<b>10</b>		
<b>PART B</b>	<b>Subject Specific Skills</b>		<b>Theory</b>	<b>Practical</b>	<b>Marks</b>	
	<b>Term I</b>	Unit 1: Being Creative	10	10	04	
		Unit 2: Visualization & Representation	35	25	12	
		Unit 3: Basic Design • Elements of Design • Principles of Design • Colour Theory and Interaction	14	09	04	
	<b>Term II</b>	Unit 3: Basic Design • Shape, Form and Space • Basic Composition • Basic Materials and Tools	41	26	12	
		Unit 4: Design & Habitat	20	--	04	
		Unit 5: Design Methodology	10	10	04	
			<b>Total</b>	<b>130</b>	<b>80</b>	<b>40</b>
	<b>PART C</b>	<b>Practical Work</b>				
		Practical Examination				25
Viva Voce				05		
		<b>Total</b>			<b>30</b>	
<b>PART D</b>	<b>Project Work/Field Visit</b>				20	
	Practical File/ Student Portfolio					
			<b>Total</b>			<b>20</b>
		<b>GRAND TOTAL</b>	<b>260</b>		<b>100</b>	

## DETAILED CURRICULUM/TOPICS FOR CLASS XI

### **PART-A: EMPLOYABILITY SKILLS**

**10 Marks**

S. No.	Units	Duration in Hours
1.	Unit 1: Communication Skills-III	10
2.	Unit 2: Self-management Skills-III	10
3.	Unit 3: Information and Communication Technology Skills-III	10
4.	Unit 4: Entrepreneurial Skills-III	15
5.	Unit 5: Green Skills-III	05
<b>TOTAL DURATION</b>		<b>50</b>

**NOTE:** For Detailed Curriculum/ Topics to be covered under Part A: Employability Skills can be downloaded from CBSE website.

### **PART-B – SUBJECT SPECIFIC SKILLS**

**40 Marks**

- ❖ Unit 1: Being Creative
- ❖ Unit 2: Visualization & Representation
- ❖ Unit 3: Basic Design
- ❖ Unit 4: Design & Habitat
- ❖ Unit 5: Design Methodology

#### **UNIT-1: BEING CREATIVE**

##### **Theory**

- Mind Map
- Brainstorming
- Visual Thinking
- Observational Skills
- Out-of-Box Thinking

##### **Practical Workshop**

- Use of Creative Tools

## **UNIT II: VISUALIZATION & REPRESENTATION**

### **Theory**

- Freehand Drawing
- Isometric Drawing
- Technical Drawing
- Basic Geometry (2 and 3 Dimensional)

### **Practical Workshop**

- Practice of Freehand, Isometric and Technical Drawing
- Construction of Basic Solids

## **UNIT III: BASIC DESIGN**

### **Theory**

- Elements of Design
- Principles of Design
- Colour Theory and Interaction
- Shape, Form and Space
- Basic Composition
- Basic Materials and Tools

### **Practical Workshop**

- Preparation of Colour Wheel
- Colour Interaction Samples
- Composition with Basic Shapes/ Materials
- Making of different Forms using Basic Materials

## **UNIT IV: DESIGN & HABITAT**

### **Theory**

- Design in Natural and Manmade Environment
- Design Disciplines and Industry

## **UNIT V: DESIGN METHODOLOGY**

### **Theory**

- Design Process Steps

### **Practical Workshop**

- Application of Design Process Steps

**DESIGN (SUBJECT CODE 830)****CLASS – XII (SESSION 2021-2022)**

Total Marks: 100 (Theory-50 + Practical-50)

	TERM	UNITS	NO. OF HOURS for Theory and Practical		MAX. MARKS for Theory and Practical
<b>PART A</b>	<b>Employability Skills</b>				
	<b>Term I</b>	Unit 1 : Communication Skills-IV	10		5
		Unit 2 : Self-Management Skills- IV	10		
		Unit 3 : ICT Skills- IV	10		
	<b>Term II</b>	Unit 4 : Entrepreneurial Skills- IV	10		5
		Unit 5 : Green Skills- IV	10		
		<b>Total</b>	<b>50</b>	<b>10</b>	
<b>PART B</b>	<b>Subject Specific Skills</b>		<b>Theory</b>	<b>Practical</b>	<b>Marks</b>
	<b>Term I</b>	Unit 1: Introduction to Design	50	40	12
		Unit 2: Design Tools & Techniques	15	20	8
	<b>Term II</b>	Unit 3: Occupational Health and Safety	15	20	8
		Unit 4: Practical Workshop	30	20	12
			<b>Total</b>	<b>110</b>	<b>100</b>
<b>PART C</b>	<b>Practical Work</b>				
	Practical Examination				15
	Written Test				10
	Viva Voce				05
			<b>Total</b>		
<b>PART D</b>	<b>Project Work/Field Visit</b>				20
	Practical File/ Student Portfolio				
			<b>Total</b>		
		<b>GRAND TOTAL</b>	<b>260</b>	<b>100</b>	

## DETAILED CURRICULUM/ TOPICS FOR CLASS XII

### **PART-A: EMPLOYABILITY SKILLS**

**10 Marks**

S. No.	Units	Duration (in Hours)
1.	Unit 1: Communication Skills- IV	10
2.	Unit 2: Self-management Skills- IV	10
3.	Unit 3: Information and Communication Technology Skills- IV	10
4.	Unit 4: Entrepreneurial Skills- IV	15
5.	Unit 5: Green Skills- IV	05
	<b>TOTAL DURATION</b>	<b>50</b>

**NOTE:** For Detailed Curriculum/ Topics to be covered under Part A: Employability Skills can be downloaded from CBSE website.

### **Part-B – SUBJECT SPECIFIC SKILLS**

**40 Marks**

- ❖ Unit 1: Introduction to Design
- ❖ Unit 2: Design Tools & Techniques
- ❖ Unit 3: Occupational Health and Safety
- ❖ Unit 4: Practical workshop

### **UNIT-1: INTRODUCTION TO DESIGN**

#### **Session 1: Design Thinking**

- Human-centric approach to Design
- Research and Discovery
- Ideation
- Prototyping & Piloting
- Testing

#### **Session 2: Design Fundamental**

- Geometry and space
- Simple Product Design

### **UNIT-2: DESIGN TOOLS AND TECHNIQUES**

#### **Session 1: Basic Materials**

- Categorization of Basic Materials and related properties
- Material Forms and Sources and measures
- Working on Basic Materials

## **Session 2: Basic Production Processes**

- Basic Production Processes in Textile Industry
- Basic Production Processes in Wood Industry
- Basic Production Processes in Metal Industry
- Basic Production Processes in Plastic Industry

## **UNIT 3: OCCUPATIONAL HEALTH & SAFETY**

- Safety and Health responsibility in Metal and Plastic industry
- Role of way safe inspection in the above industries.
- Hazard identification risk assessment and risk control in metal and plastic industries.
- Dealing with emergency
- Minimum 3 visits to industries related to the above areas.

## **UNIT 4: PRACTICAL WORKSHOP**

### **Session 1: Knowledge Workshop**

- Source and Document information on environmentally friendly design
- Project 1 : Research on a past movement of Design
- Project 2 : Photograph and report on an Architectural monument of national repute/ recognition
- Project 3 : Critique the Design of display and control of a complex product such as computer/ washing medicine/ medical equipment

### **Session 2: Design Concept workshop**

- Design concept workshop on Design for Handicapped
- Design concept workshop on Sustainable Design
- Design concept workshop on Interface Design

### **Session 3: Product Design workshop**

- Produce Design for a product for children
- Produce Design for display and control for Senior Citizens
- Design a functional product from waste

### **Session 4: Digital workshop**

- Introduction to Basic Design software
- Digitize images for reproduction
- Project 1: Digital workshop Adobe Photoshop
- Project 2: Digital workshop Adobe Illustrator
- Project 3: Digital workshop Adobe In-Design

## **LAB REQUIREMENTS (FOR A GROUP OF TWENTY STUDENTS):**

### **1. Technical Drawing Equipment**

- Computer station Licensed software (Autocad by Autodesk or Adobe Creative Suite CS6 or higher).
- Printer.
- Photography supplies, digital photo frame, access to photo printers.

### **2. Drawing Equipment and Materials**

- Soft boards - All around on the walls.
- Stools.
- Black board.
- White board.
- Crayons, pastels, charcoal.
- Colored pencils, pens, washable markers, calligraphy pens, erasers.
- Variety of paper, cardboard.
- Dry-erase boards, markers.
- Chalk, chalk board, erasers.
- Non-toxic paint (tempera, acrylic, oil, water colour, finger paint).
- Colored ink, stamps, wood blocks, natural materials, cardboard.
- Paint brushes, rollers, squeeze bottles, spray bottles, sponges, paint scrapers.
- Glue, paste, glue sticks, pots, brushes, spreaders.
- Paper scraps, magazines, cards, wrapping paper, ribbon, cellophane, newspapers.
- Cardboard tubes, boxes, roll
- Pair of scissors.
- Staplers.
- Geometry sets.
- Paper punches.
- Clips, thumb tacks.
- Adhesive tapes, glue, craft glue.
- Sandpaper, cloth, string, wire.