

**DESIGN (CODE-830)****SESSION-2019-20****JOB ROLE: Asstt. Designer**

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.

**Class XII (2019-20)****Total Marks: 100 (Theory-60+Practical-40)****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 XII opting for vocational subject along with general education subjects. The unit-wise distribution of hours and marks for class XII is as follow:

<b>Design (830) CLASS XII Session 2019-20</b>				
	Units	No. of Periods for Theory and Practical 260		Max .Marks for Theory and Practical 100
Part A	Employability Skills			
	Unit 1 : Communication Skills-IV	10		10
	Unit 2 : Self-Management Skills-IV	10		
	Unit 3 : Information and Communication Technology Skills-IV	10		
	Unit 4 : Entrepreneurial Skills-IV	15		
	Unit 5 : Green Skills-IV	05		
	<b>Total</b>	<b>50</b>		<b>10</b>
Part B		Theory Periods	Practical Periods	
	Unit 1: Introduction to Design	50	40	15
	Unit 2: Design Tools & Techniques	15	<b>20</b>	10
	Unit 3: Occupational Health and Safety	15	<b>20</b>	10 15

	Unit 4: Practical workshop	30	20	
	<b>Total</b>	<b>110</b>	<b>100</b>	<b>50</b>
Part C	<b>Practical Work</b>			
	<b>Practical Examination</b>			15
	<b>Written Test</b>			10
	<b>Viva Voce</b>			05
	<b>Total</b>			<b>30</b>
Part D	<b>Project Work/field Visit</b>			
	<b>Practical File/Student Portfolio</b>			10
	<b>Total</b>			<b>10</b>
	<b>Grand Total</b>	<b>50+110+100=260</b>		<b>100</b>

**Note:-Detailed Curriculum/ Topics to be covered under employability skill can be downloaded for CBSE website.**

## **Part B:**

### **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 wavy 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 REQUIREMENT FOR TWENTY STUDENTS

### List of Items

#### 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 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, rolls.

- Pair of scissors.
- Staplers.
- Geometry sets.
- Paper punches.
- Clips, thumb tacks.
- Adhesive tapes, glue, craft glue.
- Sandpaper, cloth, string, wire.

