

CBSE | DEPARTMENT OF SKILL EDUCATION

CURRICULUM FOR SESSION 2024-2025

DESIGN THINKING AND INNOVATION (SUB. CODE - 848)

CLASS – XI & XII

COURSE OVERVIEW

Design Thinking and Innovation will assume an ever more important role to play in the future of our world. This will help address, identify and solve problems creatively whatever the field of specialization. It should be useful to find solutions to issues both within one's own neighborhoods and to issues at a national or global level. It will also be a useful tool for us to move towards a creative economy in the coming years.

OBJECTIVES OF THE COURSE

The overall vision of the DT&I curriculum is to be able to instill the following in the students:

- Students should be able to explore their sensory abilities, cognitive abilities, and social abilities.
- It should create awareness in the students through observation, discovery, analysis, experience, collaboration, and reflection.
- It should nurture their curiosity and enhance their explorative abilities.
- It should foster creativity and innovation in students.
- The students should be able to identify problems and be able to find solutions.
- They should be able to apply design thinking processes and methods to solve various problems.
- They should be able to learn the fundamentals/essentials of the creative design discipline.
- The focus is more on hands-on knowledge learned by doing, exploring and acting upon challenges discovered within their surroundings.
- In addition, DT&I will promote socially responsible practice through enlightening the students with ways to solve problems within the Sustainable Development Goals as mentioned by the United Nations.
- The course will also help students derive a culturally-rooted understanding of design from information documented under the Indian Knowledge Systems.

LEARNING OBJECTIVES AND COMPETENCIES

The students should be able to do the following after taking the DT&I modules:

1. The students will enhance their observation skills and build empathy for issues and problems concerning users and our environment.
2. The students will improve their communication skills to be able to make presentations and defend their ideas and thinking with confidence.
3. This curriculum will bring in sensitivity to various aspects of design.
4. The students will be able to identify potential problems and be able to understand and analyse them.
5. The students will learn to explore creative innovative alternatives as possible solutions.

6. The students will learn how to create solution scenarios, make mock-ups and build prototypes.

CURRICULUM

This course is a planned sequence of instructions consisting of Units meant for developing employability and skills competencies of students of Class IX and X opting for the subject along with other subjects.

AREAS OR SPECIALIZATIONS OF DESIGN CAN ONE PURSUE

Design today is everywhere. It's driving businesses, cultures, media and technology and making sure environments (virtual or real) are easier to navigate. Design is integral to the creative industries and is part of the economy driven through creativity and innovation. We could categorize the following as broad fields of design that imbibe various specializations within themselves. These are some of the options for you to pursue as part of your future studies or as a carrier option:

- Communication design (Animation, Publication Design, Web Design, Graphics Design, Printing, Film and Video)
- Spatial design (Architecture and Interior Design, Environmental Design, Exhibition Design, Set Design, Signage Design)
- Industrial Design (Transportation, Furniture, Ceramics, Products and Packaging)
- Textiles Design (Fashion, Accessories, Jewelry)
- Craft Design (Material-based, Technology-based)
- Digital design (User experience design, User Interface design, New Media Design, Game Design, AR/VR/MR, Information Visualization)
- Service Design (Social Services, Health and Wellness Services, Agriculture Services, Public Services)
- Design management (Design Policy, Design Strategy, Design Planning, Transformation Design)

INFRASTRUCTURE REQUIRED

The curriculum has been structured such that DT&I can be taught in schools in normal classrooms. Provision should be made for students to work together in groups of 2 to 4. Arrangements should be made to put up the student's work on the walls of the classrooms to facilitate discussions as well as for the presentation of the work.

Computer facility and access to the internet will be helpful but is not a must. For schools without access to the internet, the Workbooks, Teacher's Manual, and the Exposure Content can be made available physically through printouts.

The Design Thinking and Innovation curriculum is easy to understand and deliver for teachers. And, it can be taught in remote locations with limited resources and knowledge.

SCHEME OF UNITS

CLASS	THEORY	PRACTICAL	TOTAL MARKS
CLASS XI	50	50	100
CLASS XII	50	50	100

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CLASS-XI (SESSION 2024-2025)

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

	UNITS	NO OF HOURS		MAX MARKS
PART A	EMPLOYABILITY SKILLS			
	Unit 1: Communication Skills – III	15		2
	Unit 2: Self-Management Skills – III	10		2
	Unit 3: ICT Skills – III	15		2
	Unit 4: Entrepreneurial Skills – III	10		2
	Unit 5: Green Skills – III	10		2
	TOTAL	60		10
PART B	SUBJECT SPECIFIC SKILLS	Theory	Practical	
	Unit 1: Fundamentals of Publication / Communication Design	15	10	06
	Unit 2: Fundamentals of Moving Images	15	10	07
	Unit 3: Fundamentals of Information Design	15	10	07
	Unit 4: Fundamentals of Product Design	15	10	06
	Unit 5: Fundamentals of Interface Design	15	10	07
	Unit 6: Fundamentals of Game and Toy Design	15	10	07
	TOTAL	90	60	40
PART C	PRACTICAL WORK / PROJECT WORK			
	Practical File			15
	Practical Examination + Viva Voce			20
	Project Work/field Visit/ student Portfolio (Any one has to be done) + Viva Voce			15
	TOTAL			50
	GRAND TOTAL	210		100

DETAILED CURRICULUM/TOPICS

Part-A: EMPLOYABILITY SKILLS

S. No.	Units	Duration in Hours
1.	Unit 1: Communication Skills-III	15
2.	Unit 2: Self-Management Skills-III	10
3.	Unit 3: Basic Information and Communication Technology Skills-III	15
4.	Unit 4: Entrepreneurial Skills-III	10
5.	Unit 5: Green Skills-III	10
	TOTAL	60

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

Part-B: SUBJECT SPECIFIC SKILLS

- Unit 1: Fundamentals of Publication / Communication Design
- Unit 2: Fundamentals of Moving Images
- Unit 3: Fundamentals of Information Design
- Unit 4: Fundamentals of Product Design
- Unit 5: Fundamentals of Interface Design
- Unit 6: Fundamentals of Game and Toy Design

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CLASS-XII (SESSION 2024-2025)

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

	UNITS	NO OF HOURS		MAX MARKS
PART A	EMPLOYABILITY SKILLS			
	Unit 1: Communication Skills – IV	15		2
	Unit 2: Self-Management Skills – IV	10		2
	Unit 3: ICT Skills – IV	15		2
	Unit 4: Entrepreneurial Skills – IV	10		2
	Unit 5: Green Skills – IV	10		2
	TOTAL	60		10
PART B	SUBJECT SPECIFIC SKILLS	Theory	Practical	
	Unit 1: Introduction to Indian Knowledge Systems	15	05	05
	Unit 2: Design for Personal Space	15	05	05
	Unit 3: Design for Social Space	15	05	05
	Unit 4: Design for Public Space	15	05	05
	Unit 5: Capstone Final Design Project Stage 1 – Observations and Analysis	08	10	05
	Unit 6: Capstone Final Design Project Stage 2 – Ideation and Alternate Solutions	08	10	05
	Unit 7: Capstone Final Design Project Stage 3 – Prototyping and Feedback	08	10	05
	Unit 8: Capstone Final Design Project Stage 4 – Presentation and Documentation	06	10	05
	TOTAL	90	60	40
PART C	PRACTICAL WORK / PROJECT WORK			
	Practical File			15
	Practical Examination + Viva Voce			20
	Project Work/field Visit/ student Portfolio (Any one has to be done) + Viva Voce			15
	TOTAL			50
	GRAND TOTAL	210		100

DETAILED CURRICULUM/TOPICS

Part-A: EMPLOYABILITY SKILLS

S. No.	Units	Duration in Hours
1.	Unit 1: Communication Skills-IV	15
2.	Unit 2: Self-Management Skills-IV	10
3.	Unit 3: Basic Information and Communication Technology Skills-IV	15
4.	Unit 4: Entrepreneurial Skills-IV	10
5.	Unit 5: Green Skills-IV	10
	TOTAL	60

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

Part-B: SUBJECT SPECIFIC SKILLS

- Unit 1: Introduction to Indian Knowledge Systems
- Unit 2: Design for Personal Space
- Unit 3: Design for Social Space
- Unit 4: Design for Public Space
- Unit 5: Capstone Final Design Project Stage 1 – Observations and Analysis
- Unit 6: Capstone Final Design Project Stage 2 – Ideation and Alternate Solutions
- Unit 7: Capstone Final Design Project Stage 3 – Prototyping and Feedback
- Unit 8: Capstone Final Design Project Stage 4 – Presentation and Documentation