



ANDHRA PRADESH STATE COUNCIL OF HIGHER EDUCATION

SKILL COURSE

w.e.f. AY 2023-24

SEMESTER-IV

DESIGN THINKING

Credits: 2

2 hrs/week

Course Outcomes:

1. To understand the principles and fundamentals of Design Thinking as a problem-solving methodology.
2. To foster creative thinking and ideation techniques to generate innovative solutions.
3. To learn rapid prototyping methods for iterative testing and refinement of design concepts.

Unit 1: Introduction to Design Thinking: Definition and history of Design Thinking, Core principles and mindset, Applications in various fields (e.g., product design, service design, social innovation).

Unit 2: Empathizing with Users: Techniques for understanding user needs and behaviors, Conducting interviews and observations, Creating user personas. Defining the Problem: Problem statement formulation, Identifying root causes and reframing problems, Stakeholder analysis and prioritization.

Unit 3: Ideation and Creativity: Brainstorming techniques and exercises, Divergent and convergent thinking, Idea selection and evaluation. Prototyping and Testing: Rapid prototyping methods (low-fidelity and high-fidelity), Conducting user tests and feedback collection, Iterative design and refinement. Collaboration and Teamwork: Effective teamwork in Design Thinking projects, Roles and responsibilities within multidisciplinary teams, Communication and presentation skills.

Class Participation Activities:

- Active engagement in discussions, exercises, and group activities.
- Individual and Group Assignments: Reflections, problem-solving tasks, and project deliverables.
- Design Thinking Project: A comprehensive project applying Design Thinking principles to address a real-world problem.
- Presentations: Presenting design concepts, prototypes, and project outcomes.

Text Books:

1. "Design Thinking: A Paradigm Shift in Design" by Prateek Harne and Aman Vohra.
2. "Design Thinking: An Indian Perspective" by Pooja Khati.
3. "Design Thinking: A Manual for Innovation" by Joana N. Vasconcelos.
4. "Design Thinking in India: The Next Big Leap" by Yatin Sethi.

Reference Books:

1. "Design Thinking: Understanding How Designers Think and Work" by Nigel Cross.
2. "Design Thinking: Process and Methods Manual" by Robert Curedale.
3. "Design Thinking for Visual Communication" by Gavin Ambrose and Paul Harris.
4. "Design Thinking: A Guide to Creative Problem Solving for Everyone" by Bruce Hannah.
5. "101 Design Methods: A Structured Approach for Driving Innovation in Your Organization" by Vijay Kumar.