

**NIRMA UNIVERSITY**  
**INDUSTRIAL DESIGN PROGRAMME**  
**Bachelor of Design, Department of Design**  
**Year IV, Semester VII**

L	T	P	C
2		9	8

<b>Course Code</b>	<b>IDPR 411 E</b>
<b>Course Title</b>	<b>Design of Public Utility Systems</b>

**Course Learning Outcomes (CLO):**

At the end of the course the students will:

1. Work in interdisciplinary teams to develop an understanding for design of public utility installations using participatory or co-creation techniques
2. Develop and understanding of space, materials and context from a humanistic perspective
3. Understand material manipulation, standards and technical requirements
4. Design, develop and prototype a conceptual solution

**Syllabus:**

**Total Teaching hours: 165**

**Unit 1: Mapping the context**

**Teaching hours: 30**

- 1.1 Mapping the contextual relationships through systemic research methods
- 1.2 Develop models and understanding of design, erection, commissioning
- 1.3 Understanding costing and pricing mechanisms for public utilities
- 1.4 Speculative design methods for visualizing futures

**Unit 2: Understanding technical requirements**

**Teaching hours: 30**

- 2.1 Standards of design, implementation, materials
- 2.2 User requirements and patterns of behaviour
- 2.3 Use, misuse, abuse scenarios
- 2.4 Design against vandalism

**Unit 3: Conceptualizing futures:**

**Teaching hours: 42**

- 3.1 Speculative design methods
- 3.2 Projection techniques and trend mapping
- 3.3 Conceptual design with a thematic focus on future conditions
- 3.4 Representation techniques

**Unit 4: Design and fabrication**

**Teaching hours: 63**

**Suggested Readings:**

1. Gibson, D. (2009). *The wayfinding handbook*. New york: Princeton architectural Press.
2. van den Hoven, J., van den Hoven, J., Doorn, N., Swierstra, T., Koops, B. and Romijn, H. (n.d.). *Responsible Innovation I*.
3. Lipps, A. and Lupton, E. (n.d.). *The senses*.

w.e.f. Academic year \_2020 and onwards

Key: L= Lecture, T= Tutorial, P= Practical, C= Credit