

## Design Studio I: User-Centered Design Process

| Week | Class Activities   |
|------|--|
| 1    | Introduction to User-Centered Design Process - Problem definition    |
| 2    | Gantt chart - Focus group - User Observation - Questionnaire         |
| 3    | User Demographics - Customer needs - Sustainability                  |
| 4    | Historical Development - Competitor analysis and benchmarking        |
| 5    | Product features and performance - Product system and its structure  |
| 6    | Ergonomics and Universality - Reliability and safety                 |
| 7    | Aesthetic, symbolic association and semantic interpretation          |
| 8    | Standards - Materials - Manufacturing process - Assembly             |
| 9    | Packaging - Warehousing - Transportation - Sale and services         |
| 10   | Design criteria and product specification (in hierarchy arrangement) |
| 11   | Intellectual property, patents and copy right                        |
| 12   | Concept generation   |
| 13   | Evaluation and concept selection                                     |
| 14   | Concept development  |
| 15   | Concept development  |
| 16   | Implementation   |
| 17   | Final presentation   |

Credits: 4

### prerequisites:

- Fundamentals of Industrial Design II
- Technical Design II
- Human Factors Engineering II

### Recommended Readings:

- Design Methods, John Chris Jones
- Product Design and Development, Karl Ulrich , Steven Eppinger
- The Mechanical Design Process, David Ullman

### Download:

- Design Process (Published with permission of author: Sardar Hajati Modarai) ; (331 KB)