

NCO205 User-Centred Design: Human Factors and Design Thinking

Level: 2

Credit Units: 5 Credit Units

Language: ENGLISH

Presentation Pattern: EVERY SEMESTER

Synopsis:

User-Centred Design is a key differentiator in the success of products or services for human use. It leads to solutions that better address user needs and provide good user experiences. This course aims to inculcate in students the importance and benefits of User-Centred Design for solutions they develop in their different disciplines and how to achieve it. The course will introduce an awareness about human strengths and limitations through the study of Human Factors, together with user research and design skills from the practice of Design Thinking. Through this course, students will learn to consider scientific knowledge about humans, combined with contextual understanding of user activities and needs, when designing, prototyping and testing new or improved products or services.

Topics:

- Why: User-Centred Design
- How: Human Factors
- How: Design Thinking
- Understanding the human: physical and cognitive
- Understanding the human: emotional and social
- Understanding user needs
- Defining actionable problems
- Designing creative products
- Designing creative services
- Prototyping solutions
- Evaluating solutions analytically and empirically
- Designing for inclusivity and persuasion

Learning Outcome:

- Explain human strengths and limitations in Human Factors
- Describe the non-linear, iterative process in the Design Thinking methodology
- Illustrate how Human Factors and Design Thinking leads to User-Centred Design
- Practice observational and interview techniques in understanding user needs
- Use ideation techniques to design creative solutions
- Appraise prototypes through analysis and testing

Assessment Strategies (Daytime Class):

Components	Description	Weightage Allocation (%)
Overall Continuous Assessment	GROUP BASED ASSIGNMENT 1	60

Overall Continuous Assessment	TUTOR-MARKED ASSIGNMENT 1	40
Total		100