

NUS SOC Summer Workshop 2026

X-Cluster

Designing Interactive Interfaces: UIUX in the Digital World

Course Information

Pre-requisites

🐱 Which year of study is appropriate for your topic?

Any year of study is acceptable! You're never too young or old to learn great design skills!

🐱 What background and programming languages are required for your topic?

No previous experience is required.

🐱 What do you think is attractive/unique about your topic to students?

Anyone can learn this topic as long as you have the right heart and a determined mind to solve real-world problems in your everyday life! Unlike other topics that can only apply in very specific domains in Computing / IT, the UX design skills you learn in this course can be used in any industry domain or field of study, from product design for IT projects and services, to process design for Information Systems management, or even in your own personal life!

Learning Content and Teaching

🐱 What will be covered during “trial” lectures?

Students will cover the following topics:

1. Defining Experience:
 - a. Sensations
 - b. Emotions
 - c. Perceptions
2. Defining Design:
 - a. Goals
 - b. Constraints
3. How to combine Experience and Design to influence Sentiment.

🐱 What will be covered during the “advanced” seminars?

1. Defining Usability Goals
 - a. Effectiveness
 - b. Efficiency
 - c. Safety
 - d. Learnability
 - e. Memorability
 - f. Utility

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2. How to use Usability Goals to evaluate an Experience?
3. Defining Design Principles
 - a. Visibility
 - b. Feedback
 - c. Constraints
 - d. Consistency
 - e. Affordance
4. How to use Design Principles to improve a Design?
5. Understanding the role of Empathy in UX Design.
6. Understanding how to uncover root causes of problems so that you truly understand what to do design.

 What will be the nature of the project work? How do you intend to split students into project groups, each consisting of 3 or 4 students?

For project work, students will be practicing Agile design methodology and Design Thinking / User-centered design to create Video Storyboards and Wireframe maps, both essential for UX Design in the industry.

Students can choose their own groups, or we will form groups based on the Design requirement of Diversity to ensure better design considerations. Meaning, everyone will be split up into groups with special groupings to ensure maximum exposure for all students to different ways of thinking and perspectives.

 Do you have any recommendations for references (books) students can study to prepare for your topic before coming to NUS?

Interaction Design - Beyond Human-Computer Interaction / Preece / 5th Ed (ISBN: 978-1119547259)

 Besides their own personal laptops, what other equipment or software would students need for your topic?

Students will need a free Figma account (sign up for free at figma.com), and any free video editing software (eg. <https://www.openshot.org/>). Students will also need Microsoft Powerpoint or similar application for creating UI mockups to be used in Figma.com !