

NUS SOC Summer Workshop 2021

AI & Media

Make Good Products Great Again!

Course Information

Pre-requisites

👾 Which year of study is appropriate for your topic?

Any year of study, but students with skills in creating any type of prototypes (software / hardware / wireframes etc). would be preferred.

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

Web-programming (HTML5/Javascript) will be helpful, but even having no programming is OK, as long as student can contribute in some other way to the project (such as creating / drawing / producing assets (such as graphics, sound, 3D models etc) and interfaces using rapid prototyping tools such as AdobeXD / Powerpoint)..

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

Design is about achieving goals within constraints, and when students choose this topic, they will learn how to analyze everything in this world using the Design Thinking framework and theories. Students will be able to discover both the real goals of a product / service, as well as the real constraints of the product / service. This means that students who choose this module will become much stronger designers and engineers than people who do not choose this module. Therefore, students who choose this module will have a great advantage in all domains, not just in a computing domain, because Design applies to all domains. This also means that students who choose this topic will become great designers and will more successful than their peers because they can design better products and services.

Learning content and Teaching

👾 What will be covered during “trial” lectures?

- 1st hour: Introduction to Six Usability Goals (6UGs)
- 2nd hour: Guided (Lecturer-driven) practice of using 6UGs for evaluating a product/service to determine if it is good or bad.
- 3rd hour: Student-driven practice of using the 6 UGs to evaluate anything in the student's environment.

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- 4th hour: Introduction to Five Design Principles (5DPs)
- 5th hour: Guided (Lecturer-driven) practice of using the 5DPs for improving a product/service after it has been evaluated via the 6UGs
- 6th hour: Student-driven practice of using the 5DPs to improve anything in the student's environment.

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

Advanced seminars will be in iteratively applying the 6UGs and 5DPs in an Agile/SCRUM development lifecycle to create a POC remote collaboration tool/system for home-based learning/working.

🐙 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?

Students will be working in groups, with clearly defined roles so that each student is accountable for his/her contribution to the project. Students can choose what role they want to play before the project starts, and they can decide to change their role even during the project, but all students must contribute significantly to the project, and their contributions will be evaluated by their groupmates.

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

<http://www.id-book.com/>

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

They must have their personal laptop (Windows / Mac). That's all they need!

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Assessment

👾 What forms of assessment will there be?

Group project work, assessed both Individually (50% by groupmate review) and externally (50% by other groups within the course). The will be assessed based on how well they have applied the Usability Goals to evaluate their prototypes, and also based on how well they have applied the Design Principles to re-design their prototypes.