

COURSE OVERVIEW

Course Code	DS1101 <i>(Applicable to students admitted from AY2026 onwards only)</i>
Course Title	Transversal Studio: Sense and Interaction
Pre-requisites	NIL
Course Type	Major PE (ADMC); *BDE (NTU) <i>*Please note that a course can be taken as a BDE only when the school offers it as a BDE for that semester. Students are to check eligibility to determine if they can take this course in that semester.</i>
Academic Units	3
Contact hours	39 hours
Mutually exclusive to	Not applicable

Course Aims

In this introductory course, you will be introduced to the basic principles of interaction design examining how materials, environment, and technologies connect to create meaningful experiences. You will learn how input, process, and output work together to form interactive systems found in art, media, and product design.

Through hands-on exercises and guided projects, you will explore sensing, systems thinking, and creative technologies while experimenting with form, movement, and feedback. The course encourages your curiosity, play, and iteration, testing and refining ideas to understand how design can shape behaviour and experience.

You will also work with key tools and platforms such as Arduino and sensors, 3D graphics with Processing, TouchDesigner, and Python programming. These tools will help you visualise data, design interactions, and prototype responsive environments. Throughout the course, you will learn how to move from observation and research to testing and presentation, developing both technical competence and critical awareness.

This course is ideal for those who are curious about the Transversal Design: Object and Interaction specialization, where design thinking expands across physical and digital practice. This course will provide a strong foundation for future work in creative technology, product and experience design, and emerging media.