

## COURSE CONTENT

<b>Course Code</b>	DM2007
<b>Course Title</b>	Interactive II
<b>Pre-requisites</b>	DM2000
<b>No of AUs</b>	3
<b>Contact Hours</b>	39 hours studio contact

### **Course Aims**

This course further introduces you to the fundamental principles of interactivity presented in DM2000 Interactive I. You will further explore modes of interaction, their computational methods and their systemic relationships: making sense of the environment (input), processing this information and acting in the environment (output via diverse media). The class will promote interdisciplinary problem-solving via experimental art and speculative design for this rapidly expanding and transforming field. You will deepen your ideation, development and prototyping skills in preparation for further in-depth studies.

### **Intended Learning Outcomes (ILO)**

By the end of the course, students should be able to:

1. Apply core experimental interactive media strategies to creative solutions, design or artworks.
2. Demonstrate intermediate proficiency in techniques to author interactive media projects.
3. Develop an interactive media project in a specific context.
4. Fuse solutions from the various genres found in interactive media and design fields.
5. Critique and reflect on concepts and methods used by peers in making of an interactive project.

### **Course Content**

#### **Modes of interaction.**

You will get further exposure to the importance of user participation and engagement in interactive media. You will also gain a deeper understanding of computation, its role and impact in the arts. You will further develop concepts surrounding speculative and practice-centred approach to the development of interactive media. You will continue the learning of fundamentals of three core systemic elements of the interactive media project: input, processing and output. Notions of responsiveness and real-time, digital transformations and readability will be addressed in the interactive scenarios found in: experimental interface design, physical computing, information visualization, game design, realtime audiovisuals, locative and mobile media, computational form-generation, image processing and visionbased interactions, augmented reality, simulation, networked crowd-sourcing, mechatronic and robotic art, physical computing, and other situations.

#### **Designing interactions and role of prototyping**

You will identify and develop conceptual frameworks for an interactive media project with a strong emphasis on designing experiences, design patterns, the role of affordances and the importance of iterative prototypes. You will prototype ideas in order to incrementally refine your interaction designs before they go to the production stage. You will demonstrate maturity in ideation and

conceptual thinking and explore computation as a medium for curiosity-driven experimentation.

### **Developing and producing interactive projects**

You will further master the producing skills acquired in Interactive!: development of a project demo, adjustment of the project goals and outcomes, production, postproduction. Through a small number of exploratory assignments and a capstone project, you will bolster interdisciplinary problem-solving abilities

### **Creative coding and Class assignments**

You will develop skills and understanding of integrated development environments found in a variety of popular arts-engineering toolkits. Thru rigorous programming exercises, you will develop the basic vocabulary of constructs that govern static, dynamic, and interactive form. Topics include the computational manipulation of graphics, sounds and tangible elements. The interaction mode will cover essential notions of time, change, motion, reactivity, connectivity and feedback, interactive graphics, sound, incorporation of various modes of input (sensors, cameras) and multimedia output.

Assignments and projects are developed through self-directed learning with guidance, assisted with lectures, tutorials, class excercises, and peer/instructor feedback sessions.