

## **IMMERSIVE MEDIA & GAME DESIGN COURSE MODULES**

Build immersive experiences that allow users to interact with graphics, moving images and sound, or launch the next big interactive gaming app with our Diploma in Immersive Media & Game Design (IMGD).

In your first year, you will receive rigorous training in design and programming through modules such as Drawing Foundation, Applied Design and Programming Fundamentals.

In your second year, you can choose to specialize in Immersive Interactive Media or Game Design.

### **Immersive Interactive Media**

Get trained in developing apps for the Web, mobile and wearable devices, while acquiring skills in digital design and technology, and user experience design.

### **Game Design**

Learn to conceptualise, design and create interactive entertainment experiences as well as digital 3D game environments and characters – sci-fi or fantasy. Plus, pick up skills in game design and game engine scripting languages.

In your final year, you will work on an interactive media project that gives you valuable production and project management experience. You will get to use the Game Design & Development Centre set up in ICT by award-winning 3D game engine provider, Unity Technologies. The Unity 3D game engine allows you to create rich, interactive 3D content on the web or mobile platforms easily. With such professional tools available, you are all set to impress your future employer with an industry-standard portfolio.

Throughout your three years, there are also ample opportunities for you to attend masterclasses conducted by industry experts and participate in overseas programmes designed to give you a global outlook and an enriching experience.

## **LEVEL 1.1**

### **Drawing Foundation**

This module trains students to develop the skills needed to visualise and create ideas for digital and interactive projects. Students will be exposed to various training and basic drawing techniques that will hone their ability to visualise ideas. Rudimentary exposure to digital tools will occur at the later part of this module in order to solidify the relevance of traditional skills in digital tools.

### **Design Principles**

This module aims to develop the abilities of the students in the design principle and fundamental elements and processes of organising, displaying, and communicating ideas and information creatively to the minds of the intended audience through two-dimensional form, three-dimensional form, colour structure, and composition. Topics will cover elements and principles of design, visual organisation and perception, colour, communication theory, and problem solving. Students will be trained in the usage of digital design tools and application of modern industrial practices to communicate the concepts, designs and solutions.

### **Fundamentals for Creative Professionals I**

This module provides a broad introduction to the field of IDM by exploring the roles, professional practice, ethical expectations and career development paths of IDM professionals. Through a guided inculcation of interpersonal and team work skills with strong team bonding spirit, the module aims to deepen students' commitment to the sector that the course prepares them for.

In addition, students will be required to begin charting their career path in the IDM industry by considering crucial aspects such as personal preferences and aptitude, job roles and responsibilities, skills needed and further education.

### **Principles of Animation**

This module introduces the language and principles of classical animation through analysis and decomposition of movement frame-by-frame. Students will explore the importance of effective timing and spacing, and how their effective

manipulations can add physicality, personality.

### **Programming Fundamentals I**

This module introduces the fundamental concepts of programming through problem solving. It encompasses three main programming constructs, flowchart design, and introduces data types and variables. Other key topics involve product management, code debugging, development of test cases and program documentation as an integral part of software quality management.

### **Storytelling, Scriptwriting & Storyboarding**

Storytelling, Scriptwriting & Storyboarding aims to induct students into the world of storytelling, and the industry practice of scripting and storyboarding visual communication prior to going into production stage.

Students will explore new story creation through the generation of story ideas, characters, story imagery and script.

## **LEVEL 1.2**

### **3D Fundamentals**

This module aims to introduce and equip students with basic skills in using 3D application to create assets for interactive projects. Students will be trained in the usage of basic tools and apply appropriate methods to create 3D assets that are essential in digital content creation. Students will also be trained to apply appropriate workflows that are also utilised in the industry.

### **Applied Design**

This module aims to develop students' ability to perceive, design and construct objects in three-dimensional space. Additionally, students will be trained to interpret and translate two-dimensional form into three-dimensional volume, mass, space, and structure. It introduces the basic elements, principles, materials and methodologies of three-dimensional design. Working with both physical medium and digital tools, students be trained in usage of materials, physical components, application of digital design and visualisation tools, and communicate their ideas and solutions through physical mock-ups and prototyping.

### **Programming Fundamentals II**

This module aims to widen students' programming knowledge by covering programming concepts through the creation of interactive media applications. Students refine their knowledge of programming by decomposing their programs into classes and objects. The focus of this module is to develop data structures and design algorithms to handle programming tasks.

### **Sketching & Rendering**

This module builds upon knowledge and skills gained in Drawing Foundation. Students are introduced to permanent mediums like ink, markers and various techniques. These mediums are required in the production of both observational and ideation works while simultaneously, strengthening confidence in visualising ideas. In the second term, students are required to apply their knowledge and skills gained in the first term into digital works. Basic digital techniques and workflow used in the industry will be introduced at this stage.

### **Web Design**

This module focuses on the core fundamentals of creating modern-day, accessible websites not only for mainstream audience, but also accessible to individuals with disabilities. Students learn the fundamentals of web design production and author cross-platform websites for multi-devices based on sound design principles. Students get to learn and understand modern web layout principles in their development work and gradually moving on to create animated interactive elements to keep up with evolving design trends.

## COURSE CURRICULUM

Module Name	Credit Units
<b>YEAR 1</b>	
<b>Level 1.1 (27 hours per week)</b>	
Design Principles	4
Drawing Foundation	4
Fundamentals for Creative Professionals I	3
Principles of Animation	4
Programming Fundamentals I	4
Storytelling, Scriptwriting & Storyboarding	4
Innovation Made Possible <sup>^</sup>	3
Sports & Wellness <sup>^</sup>	2
<b>Level 1.2 (24 hours per week)</b>	
3D Fundamentals	4
Applied Design	4
Programming Fundamentals II	4
Sketching & Rendering	4
Web Design	4
Communication Essentials <sup>^</sup>	3

### Notes:

<sup>^</sup> For more details on Interdisciplinary Studies (IS) electives, please log on to [www.np.edu.sg/is/](http://www.np.edu.sg/is/)

### IS Modules

The School of Interdisciplinary Studies (IS) delivers a broad-based curriculum, which nurtures a new generation of professionals with multidisciplinary skills and an innovative and entrepreneurial spirit to meet the challenges of a knowledge economy. IS offers both prescribed modules and electives to challenge boundaries. Prescribed modules develop students' competencies in core areas such as Communication, Innovation and Enterprise, Culture and Communication, and Personal Mastery and Development, while elective modules provide insights into Arts and Humanities, Business, Design, and Science and Technology.