ANIMATION COURSE MODULES

Create new worlds and ignite your imagination with the Diploma in Animation (ANI). Bring animated characters to life with flawless art, design, storytelling and character performance. A comprehensive practice-oriented course, ANI is designed to take you through the entire process of animation production, from conceptualization to post-production.

In your first year, you will acquire a firm foundation in animation, covering modules such as Principles of Animation and Fundamentals for Creative Professionals. You will also learn the basics of storytelling, scriptwriting, storyboarding and drawing.

In your second year, you may choose to major in one of the following specialisations:

3D Arts
Acquire skills that will enable you to become a professional 3D modeler or character rigger, texture or lighting artist in the digital entertainment industry.

Character Animation
Develop pre-production and production skills in design, storyboarding, 2D and 3D character animation.

In your final year, deepen your skills with modules such as 3D Animation Production and Digital Cinematography. Apply these skills to develop a full-fledged animation project as part of your graduation portfolio.

LEVEL 3.1

3D Animation Production
This module introduces 3D animation production within the context of a small production pipeline. Building on the cumulative skill sets acquired in previous semesters with a focus on team dynamics rather than individual projects, it provides an overview of the process of 3D digital production, such as scheduling, budgeting, developing & documenting the production process, and integration of tasks across a production, from concept to completion.

Emphasis is placed on professional habits and the digital workflow. This will require each cohort to learn choreography, continuity, and basic scene analysis, all while working within the confines of a team. New dynamics will come into play, particularly in terms of accountability to small and large groups, as well as increased responsibilities with man-hour projections and general scene management.

Concept Development
This module introduces various idea generation and concept development techniques. Students learn the pre-production skills of concept illustration and visual development through the application of knowledge skills in drawing, storytelling and composition to communicate the concept effectively to an audience.

Digital Post-Production
This module focuses on the final stage of all animation production, which involves the assembly of various production elements ranging from rendered files to sound effects. Students are introduced to the effective use of equipment, compression strategies and codecs in post-production. Effective editing skills for animation such as working with animatic and finished-shot to build the final edit, compositing of visual effects and conformation of audio to picture will be covered. Students will also examine the various channels for media delivery, bandwidth consideration, and delivery format.

Fundamentals of Creative Professionals III
This module provides a stepping stone to the students in their IDM career. Students are given an insight into the IDM industries and are kept abreast of the updates and the necessary skill sets required in their career path. They also have the opportunity to be exposed to the various institutes of higher learning to further enhance their skill sets.

World Issues: A Singapore Perspective^
This module develops a student's ability to think critically on world issues. Students will discuss a wide range of social, political and cultural issues from the Singapore perspective. It also looks at how city-state Singapore defied the odds

and witnessed close to half a century of rapid economic growth, strong political ties and social harmony.

LEVEL 3.2

Internship or Studio-based Production
The primary aim of this final year industry-based project is to nurture the spirit of innovation and enterprise in students and broaden their experience beyond classroom learning. It also provides students with the opportunity to apply the knowledge and skills gained in the past semesters. Using the demo programme prototyped in the earlier semester under the Concept Development module, students will develop an idea into a full working product. Local or overseas attachments are also possible.

ELECTIVE MODULES

3D Environment Modelling
This module provides the opportunity for students to create architectural interiors and the natural environments representing houses, buildings, an entire worlds contained under one roof, in which to place the game characters. It explores and integrates design and technology to develop matte paintings, virtual sets and digital backgrounds. Students acquire the knowledge and practical skill sets for digital matte painting production.

3D Prototyping
This module introduces the aspects of rapid prototyping by allowing students to partake in designing 3D models and implementing them into a physical 3D product. Students are exposed to various prototyping methods and covers product design and using 3D printing as an enabling technology.

Capstone Project
In this module, students are required to complete a substantial project that is the culmination of their education in the School of InfoComm Technology. The project can be a real-world problem proposed by a client, or it can be proposed by students in pursuit of their personal interests.

Digital Painting
This module covers digital painting techniques essential to produce artwork and background for concept art, animation and games. It covers speed drawing and painting, and further enhances students' understanding of light and shade, colour, composition, atmospheric and linear perspectives, form and space to create an appropriate mood and emotion for the situation as required in the script and the illusion of volume and space.

Effects & Simulation
This module aims to equip students with the capability to create a range of effects for a variety of needs in animation production. Students will be introduced to simulation through particle-based effects. An overview of softbody dynamics will also be covered in the form of cloth, hair and fluid simulation. Students learn to optimise their workflow with the goal of producing rendered effects that display natural behaviour and appearance.

Pre-Visualisation
This module examines the digital pre-visualisation processes of modern filmmaking which supplement traditional storyboarding techniques. Through demos and exercises, students learn how to utilise animation and modelling in order to stage and art direct complex sequences before they proceed to actual production. Lighting, camera placement, movement, editing, and storytelling are also covered in class lectures.

COURSE CURRICULUM

Module Name	Credit Units
YEAR 3	
Level 3.1 (26 hours per week)	
3D Animation Production	4
Capstone Project or 2 Elective Modules [#]	8
Concept Development	4
Digital Post-Production	4
Fundamentals of Creative Professionals III	2

Interdisciplinary Studies (IS) elective ^	2
World Issues: A Singapore Perspective ^	2
Level 3.2 (22 hours per week)	
Internship or Studio-based Production	22
In the second year, students choose to specialise in either	
Character Animation or 3D Arts	

Notes:

^ For more details on Interdisciplinary Studies (IS) electives, please log on to 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.

The prescribed/elective modules offered may change from year to year, depending on relevance and demand. They may also include modules available in other diplomas offered by the School.