VISUAL EFFECTS COURSE MODULES

What if you could turn daydreams into reality? From breathtaking landscapes to life-like explosions, visual effects professionals constantly break creative and mental boundaries by bringing to life new worlds and exciting fantasies.

Want to be part of the action? The Diploma in Visual Effects (VFX) aims to equip aspiring visual effects artists with industry-based production techniques as well as key visual and creative skills. You will get a solid grounding in core principles of visual communication, special effects and advanced post-production services.

Create Exciting 3D Content

As a VFX student, you will learn the fundamentals of storytelling and storyboarding, camera and lighting as well as animation. You will also get to create dramatic settings and characters using the latest industry- standard software such as NUKE, a high-end software compositing tool used by top Hollywood effects studios on movies such as *Captain America: Civil War, X-Men: Apocalypse* and *Batman v Superman: Dawn of Justice*. VFX is also the first polytechnic diploma programme to pioneer training in Stereoscopic 3D (S3D) filmmaking equipment and software.

Build Your Creative Portfolio

As this is a portfolio-driven industry, you gain a head start by building your practical experience with industry-leading Maya and Zbrush software. Another big plus – you get to work with Ultra High Definition (Ultra HD) cameras in one of Singapore's largest green screen studios, and an online production suite.

In your final year, enhance your portfolio with a six-month internship, a final-year project or an industry-based project. You can intern at production and post-production houses where you will take on tasks such as shooting, compositing, modelling and animation for commercials, films, TV programmes and videos. Or choose to do a final-year project where you have creative freedom to conceptualise and put together your own short film built around eye-popping visual effects. You can even take on an industry-based project with m:idea, our in-house media conglomerate, and help produce cutting-edge titles, graphics and visual effects to enhance videos created by the production team for clients.

You will also have the chance to work with industry practitioners and showcase their projects to the world. In fact, six VFX interns worked on a local horror movie *Afterimages* by Mythopolis Pictures that won the "Best FX Award" in the 9th Edition of the Thriller! Chiller! Film Festival in Michigan, United States, in 2014 and another "Best FX Award" at the NYC Horror Film Festival in New York.

LEVEL 1.1

Design & Typography (Motion Type)

The module is designed to introduce to the students the role of visual design in communication and how to integrate graphic and typographic elements in images be it for print or video. Students will acquire hands on knowledge on the practice used in the creation of basic design composition.

Drawing & Perspective

This aim of this module is to introduce first year students to the fundamentals of drawings. Various Drawing medium and drawing techniques utilized by accomplished Artists will be introduced in this module. Through course assignments and exercises, students will acquire key technical skills required to accurately draw from observation. Upon the completion of this module, student will have the skills to discern a good drawing. The skills acquired from this module such as the understanding of forms & space, value relationships, perspective and contours are instrumental for future modules such as Form and Space, Computer Graphics and other animation related modules.

History of Film & Motion Arts

The History of Film & Motion Arts will explore the history and evolution of animation and visual/special effects within the context of worldwide cinema. Particular attention will be paid to the key developments and milestone achievements within these fields. This course will use numerous screenings to illustrate the aesthetic, commercial and technological advancement of animation from its earliest incarnations to the computer-generated spectacles of today. Similarly, the history of visual/special effects will be traced with an emphasis on the landmark technological advancements that have made their integration into motion pictures and television possible.

Introduction to Visual Effects

This module is designed to equip students with the basic knowledge and skills in the creation of computer graphics. Students will acquire hands on knowledge on the tools used in the creation of Visual Effects, and its production stages. Students will work on a project, which requires foundation of visual effects techniques. This module is compulsory for all first year VFX students and will serve as a foundation for other CGI related 2nd and 3rd year modules.

Location Production
This module is an introduction to single-camera film-style video production. This module aims to provide students with a basic theoretical and practical introduction to video production techniques and equipment, aesthetics and planning and organizing the video production.

LEVEL 1.2

3D Form & Space
This module aims to develop students' ability with representing ideas through 3 dimensional form and space. Students are encouraged to explore different materials such as malleable wire, paper/paper mache, clay, plastercine and Super Scupley. To gain a better understanding of the human form, human anatomy will be introduced. Deliverables from this module will facilitate and support progressive learning in future modules such as Hardware Modelling & Animation and Polysculpting at level 2.

Animation Foundation
This module is designed to introduce students to the principle of animations through traditional "cell" animation. Students will acquire proper knowledge of animation production pipeline and animation principles through the assignments introduced in this module. They will also be introduced to the materials and equipment commonly used in producing a tradition animation sequence. Various aspect of character design will also be introduced.

Camera & Lighting 1
This module exposes students to the technical and aesthetic aspects of digital image acquisition through the use of still and video camera. Subjects include use of digital cameras, exposure, existing light, lighting setup, pictorial composition and image adjustment with Adobe Photoshop. Students will receive technical and creative instruction during lectures. They will build their technical skill through workshops and exercise their creative expression through project assignments. It is a foundation course for VFX.

Hardware Modelling & Animation
Building on their foundation from 3D Form & Space module, student will learn the principles, concepts and techniques of 3D asset creation in the process of creating real world hard surface objects using Maya. Through reference image & video collections, students will focus on detailed 3D modelling by breaking down CG assets into various parts, default 3D lighting and exposure to animation & rendering through 3D turntable deliverables for their portfolio.

Storyboarding & Storytelling
This module focuses on storyboarding and storytelling skills for the students. A series of exercises will develop techniques that enhance the student's ability to visualize and sketch shot sequences and camera moves. Students are instructed in simple sketch techniques to expand their ability to communicate visual concepts to other artists. Also, this module is designed to assist students in the techniques of storytelling. They will create meaning through stories that reflect their own lives and imaginations. Both written and oral exercises and assignments will allow students to create stories within a structured framework

COURSE CURRICULUM

Module Name	Credit Units
YEAR 1	
Level 1.1 (26 hours per week)	
Design & Typography (Motion Type)	3
Drawing & Perspective	5
History of Film & Motion Arts	4
Introduction to Visual Effects	3
Location Production	5
Innovation Toolkit ^	4
Sports & Wellness ^	2
Level 1.2 (26 hours per week)	
3D Form & Space	5
Animation Foundation	4
Camera & Lighting 1	4
Hardware Modelling & Animation	4
Storyboarding & Storytelling	3

Career & Professional Preparation I	2
Exploring Contemporary Issues ^	4

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.