

2024

# SCHOOL OF DESIGN & MEDIA

#becausewecan

nanyang polytechnic

# PROFESSIONAL COMPETENCY MODEL

#becausewecan

**Introducing:** A curriculum that helps you develop crucial skills to succeed in your future workplace.

Instead of learning subjects in silos, you'll be equipped with the skills and competencies needed to perform work tasks, similar to what you will do in the workplace.

A key feature? PCM courses are co-developed by industry majors and leading companies. They also co-teach and co-mentor our students. You may even emerge with additional industry certifications alongside your diploma, putting you ahead of the pack.

Some of NYP's industry partners include Google, Microsoft, NVIDIA, Ubisoft, Capella and Shimadzu.

Find out more at [nyp.edu.sg/PCM](https://nyp.edu.sg/PCM)


# GAME CHANG ER


## School of Design & Media (SDM)

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For more information, go to [nyp.edu.sg](https://nyp.edu.sg)

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 [fb.com/nanyangpoly](https://fb.com/nanyangpoly)

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 [tiktok.com/@nanyangpoly](https://tiktok.com/@nanyangpoly)



# Why NYP?

## **THE SECRET SAUCE**

What will set you apart? Being innovative, and creating solutions. Gain that #winningquality here.

## **INDUSTRY EDGE**

Our strong network of industry partners = exciting opportunities for development.

## **GLOBETROT**

Travel around the world for internships, competitions, exchange programmes, or immersion trips.

## **80 CCAS**

Spark that fire and find your family. Sports, dance, music, art — there's plenty here to explore.

## **LOCATION**

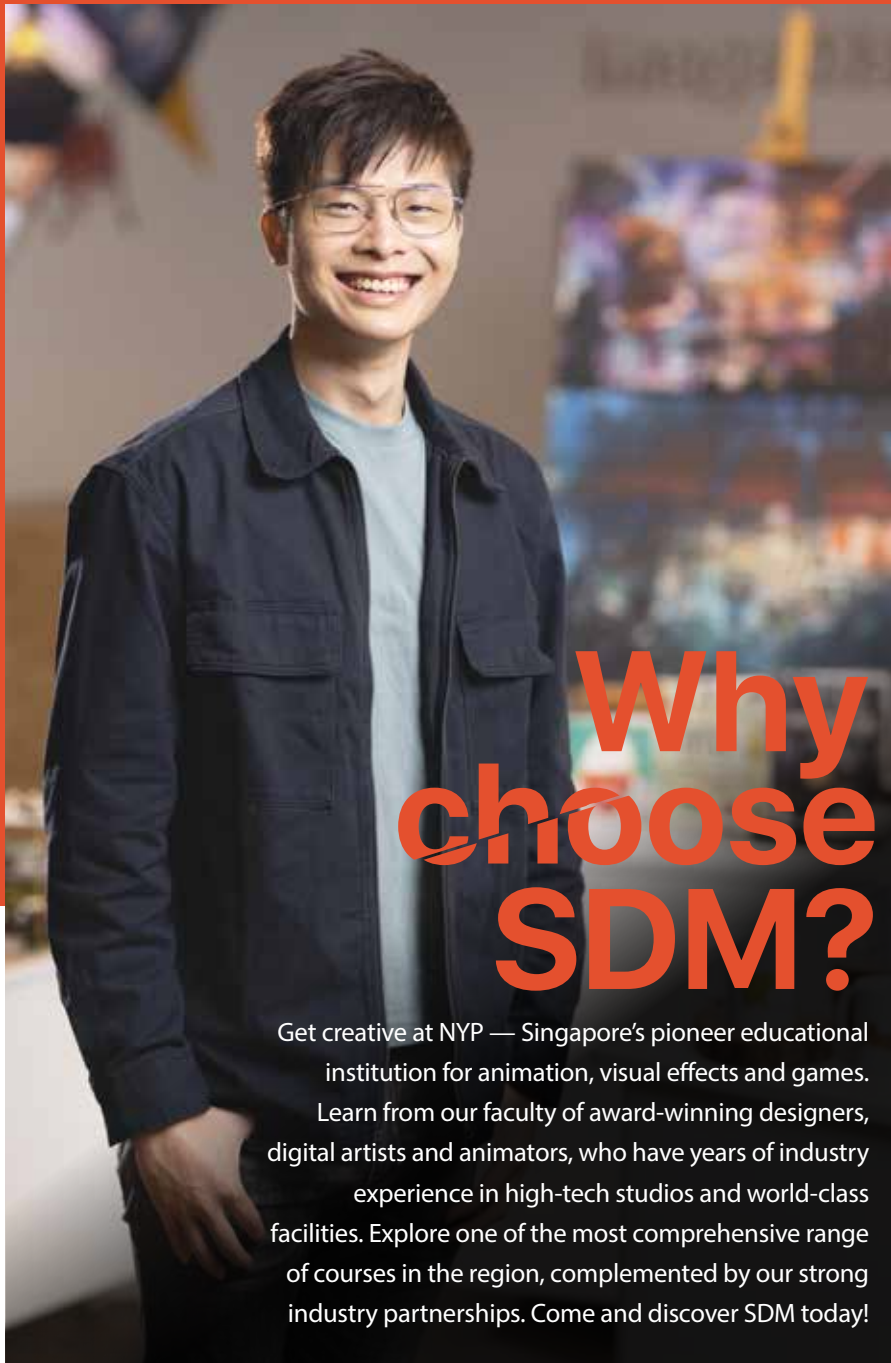
6-min walk from Yio Chu Kang MRT Station and 3 bus stops away from Ang Mo Kio Bus Interchange.

## **FACILITIES FUN**

We've got gaming lounges, dance and jamming studios — accessible to only students.

## **FAM FIT**

Soak in our nurturing and caring culture. Find your second family and grow with us.



# Why choose SDM?

Get creative at NYP — Singapore's pioneer educational institution for animation, visual effects and games. Learn from our faculty of award-winning designers, digital artists and animators, who have years of industry experience in high-tech studios and world-class facilities. Explore one of the most comprehensive range of courses in the region, complemented by our strong industry partnerships. Come and discover SDM today!

## Look forward to...



### DESIGN & MEDIA FOUNDATION

Build a strong foundation in design and media. Learn to apply your skills in both art and technology to create unique designs and products.



### INDUSTRY REALISM

Benefit from real-world experiences through internships, overseas attachments, and project collaborations with our industry experts.



### CREATIVE EXCELLENCE & COMPETITIVENESS

Strive for excellence in your creative field and garner top awards in international art, design and media competitions.



### CREATIVE FOR SOCIAL GOOD

Apply your savvy design and media skills for social good. Create positive and sustainable impact in our local and global communities.

## Industry Partners

Learn from the following renowned companies:



- BORN Group
- CraveFX
- Grandwork Interior
- gumi Asia
- IGG
- Infinite Frameworks
- KOEI TECMO Singapore

- Mercure Singapore on Stevens
- Nestlé R&D Centre Singapore
- Nickelodeon
- Novotel Singapore on Stevens
- ONG&ONG Group

- Robot Playground Media
- Singapore Institute of Architects
- Suntec Singapore Convention & Exhibition Centre
- The Walt Disney Company
- Tribal Worldwide Asia





**JAE CODE C28**

# Common Design & Media Programme

**JAE CODE C28**



# Common Design & Media Programme

This is for you if you dream of a career in design and media but are unsure of which design course to pursue.

Keep your options open — spend a semester uncovering your interests and strengths before identifying the specialisation that best suits you!

## This programme lets you...

- Gain strong foundation skills in art, design and media. Then, synthesise the knowledge and apply the skills you have mastered.
- Experience a broad-based curriculum and gain exposure to the diplomas you can progress to. After your first semester, make an informed choice about your specialisation.
- Develop essential skills such as critical and logical thinking, digital fluency, ethics, collaboration and communication.

## Benefits

- Explore the different disciplines and discover your interest and aptitude.
- Learn more about the courses offered through education and career guidance activities such as talks by alumni and industry partners, as well as course-sharing sessions by our lecturers.

## Course Structure

The NYP-PCM for the Common Design & Media Programme consists of:

- **4 Competency Units**  
Within each Competency Unit, the skills and knowledge of different disciplines are integrated and taught holistically. This enables you to fulfil specific work tasks upon completion.
- **1 Competency Canvas**  
The Competency Canvas, User-Centred Studio Practice, consists of a collection of Competency Units and a Work-Integration Unit (WIU), which is a workplace-contextualised project. Competency Canvases help you develop and demonstrate your abilities to perform work tasks at a higher proficiency.
- **11 General Studies Modules**  
You will complete a total of 11 General Studies modules across the Common Design & Media Programme and your chosen diploma course. Explore other areas of interest beyond your chosen area of specialisation.

## Competency Units

### YEAR 1, SEMESTER 1

- Design Exploration
- Design for Communication
- Drawing & Rendering
- Storytelling through Media
- User-Centred Studio Practice (WIU)

### YEAR 1, SEMESTER 2 ONWARDS

Get a foundation and learn about the different diplomas you can progress to:

- Diploma in Animation, Games & Visual Effects
- Diploma in Communication & Motion Design
- Diploma in Experiential Product & Interior Design





**JAE CODE C29**

# Diploma in Animation, Games & Visual Effects

# Diploma in Animation, Games & Visual Effects

This is for you if you want to create engaging entertainment experiences through storytelling and play.

Are you fascinated by games or movies that capture your attention with compelling digital characters, animation or visual effects? Join us on this exciting journey! Create visual worlds — from concept ideation to the final product — with imagery expressed through moving images and games.

Our comprehensive foundation modules will teach you broad skills in animation, games and visual effects to help you become tomorrow's great media entertainers.

## This diploma lets you...

- Experience a comprehensive hybrid programme that fuses art and digital technology.
- Be taught in world-class facilities by award-winning professionals who have worked at renowned companies such as Lucasfilm, The Walt Disney Company, Industrial Light & Magic, KOEI TECMO Singapore and Ubisoft.
- Gain experience in working on real-life industry projects.
- Earn industry certifications from our partners like Epic Games in addition to your diploma.
- Pursue exciting career or further education opportunities locally or overseas.

## Career Paths

- 2D/3D Character Animator
- 2D/3D Game Artist
- 3D Generalist
- 3D Lighting Artist
- 3D Modeller
- 3D Rigging Artist
- Animation Producer
- Art Director
- Composer
- Concept Artist
- Creative Director
- Digital Matte Painter
- Game Animator
- Game Art Director
- Game Level Designer
- Game Producer
- Game Quality Assurance (QA) Tester
- Illustrator
- Layout Artist
- Production Designer
- Storyboard Artist
- Texture Artist
- User Interface (UI) Artist
- Visual Development Artist
- Visual Effect Artist

## Benefits

- Develop expertise in look development, 2D and 3D animation, visual effects and media production.
- Master the art of story creation and storytelling, and gain design-related skills in games, character art and environment.
- Cultivate a broad range of skills and deepen your knowledge in the fields of animation, games or visual effects.
- Look forward to exciting careers with top animation and VFX companies such as Scrawl Animation or top game companies such as Ubisoft and Bandai Namco.

## Course Structure

The NYP-PCM for Diploma in Animation, Games & Visual Effects consists of:

### • 22 Competency Units

Within each Competency Unit, the skills and knowledge of different disciplines are integrated and taught holistically. This enables you to fulfil specific work tasks upon completion.

### • 5 Course Competencies

Each Course Competency consists of a collection of Competency Units that develops specific learning outcomes and competencies.

### • 4 Competency Canvases

Each Competency Canvas consists of a collection of Competency Units and a Work-Integration Unit (WIU), which is a workplace-contextualised project. Competency Canvases help you develop and demonstrate your abilities to perform work tasks at a higher proficiency.

### • 1 Final Year Project

### • 1 Internship Programme

### • 11 General Studies Modules

These modules allow you to explore other areas of interest beyond your chosen area of specialisation.



# JAE CODE C29

## Competency Canvases

These consist of Competency Units and workplace-contextualised projects known as Work-Integration Units (WIUs).

### 1. User-Centred Studio Practice

- Design Exploration
- Design for Communication
- Drawing & Rendering
- Storytelling Through Media
- User-Centred Studio Practice (WIU)

### 2. Pre-Visualisation Production

- 2D Animation
- 3D Workflow
- Figure Drawing
- Pre-Visualisation Production (WIU)
- Storyboard & Animatics

### 3. Cinematic Production

- 3D Animation
- 3D Asset Creation
- Cinematic Production (WIU)
- Digital Painting
- Storyboard & Animatics
- Visual Development

### 4. Specialised Media Production

- 2D Asset Creation
- 3D Animation
- 3D Asset Creation
- Compositing
- Specialised Media Production (WIU)
- Visual Development

## Course Competencies

Completing the required Competency Units will equip you with four Course Competencies:

1. 2D Art
2. 3D Art
3. Real-Time Technology
4. Storytelling

And one of the following three elective Course Competencies:

- 5a. Animation
- 5b. Games
- 5c. Visual Effects

## Competency Units

### YEAR 1

- 2D Animation
- 3D Workflow
- Design Exploration
- Design for Communication
- Digital Painting
- Drawing & Rendering
- Figure Drawing
- Pre-Visualisation Production (WIU)
- Storyboard & Animatics
- Storytelling Through Media
- User-Centred Studio Practice (WIU)

### YEAR 2

- 2D Asset Creation
- 3D Animation
- 3D Asset Creation
- Cinematic Production (WIU)
- Compositing
- Lighting, Texturing & Rendering
- Specialised Media Production (WIU)
- Visual Development

### SPECIALISATIONS (CHOOSE ONE)

#### 1. Specialisation in Animation

- Character Animation
- Digital Sculpting
- Look Development
- Rigging

#### 2. Specialisation in Games

- Business for Digital Media Industry
- Level Design
- Principles of Game Design
- Project Management

#### 3. Specialisation in Visual Effects

- Dynamic Simulations
- Film Production
- Procedural Effects
- VFX Cinematography

### YEAR 3

- Final Year Project (WIU)
- Independent Work Project (WIU)
- Internship Programme (WIU)
- Portfolio Development (WIU)
- Procedural Asset Creation
- Real-Time Engine

#### 1. Specialisation in Animation & Specialisation in Visual Effects

- Virtual Production

#### 2. Specialisation in Games

- Immersive Media Technology

## JAE CODE C29

# Our Industry Partners

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### **DARRYL LONG**

MANAGING DIRECTOR, UBISOFT SINGAPORE AND UBISOFT PHILIPPINES

The new curriculum is well-structured and provides learners with ample opportunities to acquire different skill sets as digital artists. This programme will support the growing demand for artists and designers in the video game industry.



### **BARRY SEE**

HEAD, PRODUCTION RESOURCE, MEDIACORP TV SINGAPORE

There is a good basket of core competencies to ensure that graduates will have the skillsets and agility to face the ever-changing environment. The overall course structure ensures that graduates will be sought after by the industry. It is very exciting to see games, animation and visual effects working together to create new possibilities.



### **SENG CHOON MENG**

VICE PRESIDENT, ANIMATION, INFINITE STUDIOS

The various tracks offered in Animation, Games & Visual Effects will help learners to find their own niche and career paths. The canvases offered to learners will broaden and deepen their technical skills and competencies. NYP learners, I believe, will also have a competitive edge over their contemporaries by being more adaptable, agile and resilient. I am supportive of this new direction for NYP School of Design & Media as they move to the Professional Competency Model and keep ahead of the emerging technologies and trends for the design and media industry.



**JAE CODE C38**

Diploma in  
Architecture



# Diploma in Architecture

This is for you if you want to be part of a new generation of future-ready architectural designers and technologists.

This interdisciplinary course, offered jointly with the School of Engineering, gives you holistic training in sustainable architectural design and technology. You will apply computational design, immersive visualisation and artificial intelligence within historical and social architectural contexts.

## This diploma lets you...

- Make a positive impact on the built environment through sustainable architectural design.
- Design smart and green buildings and execute ecological, architectural, and urban solutions using advanced technologies and integrated digital delivery.
- Gain experience in working on real-life industry projects.
- Seize rewarding career or further education opportunities locally or overseas.

## Career Paths

- Architectural Coordinator
- Architectural Designer
- Architectural Technologist
- Architectural Visualiser
- Building Information Modelling Coordinator
- Building Information Modelling Manager
- Construction Management Coordinator
- Facilities Management Coordinator
- Project Coordinator
- Project Manager
- Real Estate Executive
- Spatial Designer
- Urban Design/Planning Assistant

## Benefits

- Develop a broad range of skills such as sustainable building strategies as well as building construction and optimisation.
- Get familiar with the industry's statutory requirements and regulations.
- Look forward to exciting careers with top award-winning architectural firms such as DP Architects, WOHA, CPG Consultants, RSP and Surbana Jurong.

## Course Structure

The NYP-PCM for Diploma in Architecture consists of:

### • 23 Competency Units

Within each Competency Unit, the skills and knowledge of different disciplines are integrated and taught holistically. This enables you to fulfil specific work tasks upon completion.

### • 5 Course Competencies

Each Course Competency consists of a collection of Competency Units that develops specific learning outcomes and competencies.

### • 5 Competency Canvases

Each Competency Canvas consists of a collection of Competency Units and a Work-Integration Unit (WIU), which is a workplace-contextualised project. Competency Canvases help you develop and demonstrate your abilities to perform work tasks at a higher proficiency.

### • 1 Final Year Project

### • 1 Internship Programme

### • 11 General Studies Modules

These modules allow you to explore other areas of interest beyond your chosen area of specialisation.

# JAE CODE C38

## Competency Canvases

These consist of Competency Units and workplace-contextualised projects known as Work-Integration Units (WIUs).

### 1. Conceptualisation & Narrative

- Architectural Visualisation
- Body Interface Design Studio (WIU)
- Effective Storytelling
- Ideas & Approaches in Design

### 2. Architectural Digital Delivery

- Architectural Visualisation
- Building Information Modelling & Management
- Building Structures
- Dwelling Design Studio (WIU)
- Universal Design

### 3. Sustainable Building Strategies & Management

- Building Information Modelling & Management
- Building Systems Design
- Design with Nature Studio (WIU)
- Green Strategies in Built Environment
- Nature & Systems Analysis

### 4. Smart Project & Facilities Management

- Building Systems Design
- Design in Context Studio (WIU)
- Project Management
- Smart Building & Facilities Management
- Statutory Compliance & Submission

### 5. Computational Design

- Architectonics & Construction Optimisation
- Architectural Visualisation
- Computational & Parametric Design
- Design Futures Studio (WIU)
- Digital Construction & Fabrication

## Course Competencies

Completing the required Competency Units will equip you with five Course Competencies:

1. Architectural Practice & Project Management
2. Architectural Research & Design
3. Building Construction & Optimisation
4. Integrated Digital Delivery
5. Sustainable Building Strategies & Technologies

## Competency Units

### YEAR 1

- Architectonics, Construction & Optimisation
- Architectural Behaviourology
- Architectural Phenomenology
- Architectural Visualisation
- Body Interface Design Studio (WIU)
- Building Information Modelling & Management
- Building Structures
- Building Systems Design
- Circular Design
- Dwelling Design Studio (WIU)
- Effective Storytelling
- Ideas & Approaches in Design
- Universal Design

### YEAR 2

- Computational & Parametric Design
- Design in Context Studio (WIU)
- Design with Nature Studio (WIU)
- Digital Construction & Fabrication
- Environmental System & Analysis
- Green Strategies in Built Environment
- Immersive Visualisation
- Nature & Systems Analysis
- Project Management
- Regulatory Compliance & Submission
- Smart Building & Facilities Management
- Systems & Approaches in Urban Studies

### YEAR 3

- Architectural Practice & Entrepreneurship
- Architecture & Urbanism
- Design Futures Studio (WIU)
- Final Year Project (WIU)
- Internship Programme (WIU)
- Portfolio Development (WIU)

## JAE CODE C38

# Our Industry Partners

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### **TAI LEE SIANG**

**HEAD OF PILLAR, ARCHITECTURE & SUSTAINABLE DESIGN, SINGAPORE UNIVERSITY OF TECHNOLOGY AND DESIGN (SUTD)**

It is a good programme that closely matches the industry transformation map set out by the Building and Construction Authority of Singapore. It is the right move to focus on the sustainability of all the Course Competencies. This curriculum structure gives learners a great head start on picking up the profound transformation required in the areas of Building Construction & Optimisation and Integrated Digital Delivery upon graduation. The School of Design & Media has made a sound decision to move towards the Professional Competency Model, equipping its learners to meet the increased demand for graduates armed with expertise in these two areas.



### **LIM LIP CHUAN, FRANKIE**

**SENIOR VICE PRESIDENT, CPG CONSULTANTS**

The Course Competencies are aligned to the current built environment industry goals, such as the Singapore Green Plan 2030 and Building and Construction Authority Green Mark 2021. The curriculum will develop talents that will enable the transformation of the architectural practice.



### **YVONNE SOH**

**EXECUTIVE DIRECTOR, SINGAPORE GREEN BUILDING COUNCIL**

We are excited to see the emphasis on sustainability in the curriculum, with Sustainable Building Strategies & Technologies as one of the five Course Competencies in the diploma programme. As Singapore continues to champion sustainability in building and construction, graduates with expertise in this area will be at the forefront of developing innovative green building solutions. We look forward to future graduates joining us to push the envelope in an exciting industry that is constantly striving for progress.



### **NG SAN SON**

**DIRECTOR, DP ARCHITECTS**

The Diploma in Architecture offers a comprehensive and progressive curriculum designed to meet the needs of future industry demands and the digital transformation.





**JAE CODE C30**

# Diploma in Communication & Motion Design

## JAE CODE C30



# Diploma in Communication & Motion Design

This is for you if you love to express yourself and persuade others through creative content in fast-changing business environments.

Are you looking to develop innovative business strategies and translating these into visual ideas to wow your audience? Our experienced industry practitioners will help you become compelling storytellers and strategists for advertising, brand identity, social media marketing, edutainment, corporate communications and the performing arts industries. Dare to innovate and influence the status quo!

## This diploma lets you...

- Create evocative business designs, branding strategies and visual/motion graphics that inspire and engage the audience.
- Captivate and connect with the audience through brand stories, visual designs and imagery using the latest digital technologies.
- Be trained by professionals who are former design and creative leaders from renowned firms such as Publicis Sapient, Ogilvy, Wunderman Thompson, Fable and Bonsey Design.
- Work on real-life industry projects including interdisciplinary projects and internships with major design and advertising agencies.
- Look forward to exciting career or further education opportunities locally and overseas.

## Career Paths

- 2D/3D Motion Designer
- Advertising & Media Professional
- Art Director
- Brand Experience Designer
- Brand Strategist
- Content Creator
- Content Strategist
- Creative Director
- Designpreneur
- Editorial Designer
- Graphic Designer
- Illustrator
- Infographics Designer
- Packaging Designer
- Social Media Content Designer
- UI/UX Designer

## Benefits

- Be equipped with emerging digital competencies in omnichannel content creation.
- Look forward to exciting careers with companies like Google, Facebook, Shopee, DBS Bank, IKEA, Carbon TV, MTV Asia, Design Bridge, Publicis Sapient, Tribal Worldwide and Secretlab.

## Course Structure

The NYP-PCM for Diploma in Communication & Motion Design consists of:

- **22 Competency Units**  
Within each Competency Unit, the skills and knowledge of different disciplines are integrated and taught holistically. This enables you to fulfil specific work tasks upon completion.
- **7 Course Competencies**  
Each Course Competency consists of a collection of Competency Units that develops specific learning outcomes and competencies.
- **4 Competency Canvases**  
Each Competency Canvas consists of a collection of Competency Units and a Work-Integration Unit (WIU), which is a workplace-contextualised project. Competency Canvases help you develop and demonstrate your abilities to perform work tasks at a higher proficiency.
- **1 Final Year Project**
- **1 Internship Programme**
- **11 General Studies Modules**  
These modules allow you to explore other areas of interest beyond your chosen area of specialisation.

# JAE CODE C30

## Competency Canvases

These consist of Competency Units and workplace-contextualised projects known as Work-Integration Units (WIUs).

### 1. User-Centred Research

- Design Exploration
- Design for Communication
- Drawing & Rendering
- Storytelling Through Media
- User-Centred Studio Practice (WIU)

### 2. Design & Communication

- Communication with Typography
- Content Development & Storyboarding
- Design Communication Studio Practice (WIU)
- Design Exploration
- Design for Communication
- Illustration & Information Design
- Trend Forecasting

### 3. Branding & Experience

- Brand Identity & Experience
- Branding & Experiential Studio Practice (WIU)
- Communication with Typography
- Content Development & Storyboarding
- Experiential Design
- Illustration & Information Design
- Motion Design

### 4. Communication & Motion Design

- Brand Identity & Experience
- Business Design Innovation Studio Practice (WIU)
- Cinematography & Editing
- Content Development & Storyboarding
- Marketing Strategy
- Motion Design & Style Frame Development
- Omnichannel Marketing

*You will take one of the following two sets of Competency Units required based on your chosen area of specialisation:*

- 3D for Motion Design
  - Motion Design & Compositing
- Or*
- Design for Interactive Media
  - Visual Communication

## Course Competencies

Completing the required Competency Units will equip you with six Course Competencies:

1. Business Design Innovation
2. Content Marketing
3. Motion Graphics
4. Photography & Videography
5. Research & Content Design
6. Visual Graphics

And one of the following two elective Course Competencies:

- 7a. Communication Design
- 7b. Motion Design

## Competency Units

### YEAR 1

- Communication with Typography
- Content Development & Storyboarding
- Design Communication Studio Practice (WIU)
- Design Exploration
- Design for Communication
- Drawing & Rendering
- Illustration & Information Design
- Motion Design
- Storytelling Through Media
- Trend Forecasting
- User-Centred Studio Practice (WIU)

### YEAR 2

- 3D Modelling
- Branding & Experience Studio Practice (WIU)
- Branding Identity & Experience
- Business Design Innovation Studio Practice (WIU)
- Cinematography & Editing
- Experiential Design
- Marketing Strategy
- Motion Design & Style Frame Development
- Omnichannel Marketing
- Studio Photography

### SPECIALISATIONS (CHOOSE ONE)

#### 1. Specialisation in Communication Design

- Design for Interactive Media
- Visual Communication

#### 2. Specialisation in Motion Design

- 3D for Motion Design
- Motion Design & Compositing

### YEAR 3

- Creative Entrepreneurship Project (WIU)
- Final Year Project (WIU)
- Internship Programme (WIU)
- Personal Brand Management

#### 1. Specialisation in Communication Design

- Design for Sustainability
- Phygital Design

#### 2. Specialisation in Motion Design

- 3D Rendering Techniques
- Motion Design for Emerging Tech



## JAE CODE C30

# Our Industry Partners

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## DesignBridge

### PHILIP DALL

EXECUTIVE CREATIVE DIRECTOR, DESIGN BRIDGE

The Professional Competency Model (PCM) is a great step forward in equipping learners for the industry. The breadth and modular nature of the course do a great job of providing a deep understanding across many topics within the ever-changing industry landscape.



### THOMAS MOURITZEN

MANAGING DIRECTOR, ACCENTURE INTERACTIVE, ASEAN

The PCM is a major step in the right direction to equip learners with the right skills and mindset to perform and navigate the evolving economic landscape. The curriculum is well-considered. It strikes a good balance between equipping learners with digital skills and building strong fundamentals in design and aesthetics. The ability and readiness to adapt and collaborate across multi-function disciplines is crucial to their success in their career. Getting industry partners to be involved in co-developing the training materials would bring benefit to both learners and the industry.



### BENJAMIN KEE

CREATIVE DIRECTOR, ANOMALYST STUDIO

This is a bold initiative to overhaul the conventional approach to education. It moves away from teaching subjects in silos to a solution-based model that mirrors the seamless synthesis of interdisciplinary work practice of the industry, and a real-world reflection of business focus and creative expressions. The contemporary outlook of the curriculum covers a good breadth of design for communication through a wide range of creative disciplines that allows graduates to pursue the wider gamut of creative roles across different industries.

# User Experience



## Adopt A Produce

Be able to look at a plant grow without planting it yourself



## Post A Blog

Show your daily updates through our community blog page



## Planting Journal

Planting journal to receive real time feedback from farm about the produce



## Learn High Tech Farming

Get more knowledge about high tech farming via our VR experience



**JAE CODE C32**

Diploma in  
Experiential  
Product &  
Interior Design

## JAE CODE C32



# Diploma in Experiential Product & Interior Design

This is for you if you want to become a multi-disciplinary designer. Develop and design innovative experiences in different experiential dimensions, from interactive products to interior spaces.

Gain a solid foundation in developing impactful product and interior design solutions for an interactive experience. Explore the latest technologies through your creative design process and learn to develop user- and emotion-centred designs.

## This diploma lets you...

- Be trained by professionals who have worked alongside design and creative leaders from companies like Kingsmen Creatives, Landor & Fitch, Electrolux, OCBC Bank, Grandwork Interior and Tan Tock Seng Hospital.
- Gain experience in working on real-life industry projects.
- Pursue fulfilling career opportunities in diverse industries or further your education, locally or overseas.

## Career Paths

- 3D Modelling & Rendering Technologist
- AR/VR Designer
- Customer Experience (CX) Designer
- Front-End Developer
- Furniture Designer
- Hospitality Designer
- Interaction Designer
- Interior Designer
- Market & Trends Researcher
- Product Designer
- Retail Display & Promotional Designer
- Service Experience Designer
- User Experience (UX) Designer
- User Interface (UI) Designer
- Visual Merchandiser

## Benefits

- Develop solutions through multi-disciplinary design processes and the latest digital technologies.
- Be equipped with a broad spectrum of skills in product-, interior- and service-experience design.
- Look forward to exciting careers in companies such as the ONG&ONG Group, Kingsmen Creatives, OSIM, Novotel Group, LTW Designworks, BORN Group, Hirsch Bedner Associates and Accenture.

## Course Structure

The NYP-PCM for Diploma in Experiential Product & Interior Design consists of:

### • 27 Competency Units

Within each Competency Unit, the skills and knowledge of different disciplines are integrated and taught holistically. This enables you to fulfil specific work tasks upon completion.

### • 7 Course Competencies

Each Course Competency consists of a collection of Competency Units that develops specific learning outcomes and competencies.

### • 4 Competency Canvases

Each Competency Canvas consists of a collection of Competency Units and a Work-Integration Unit (WIU), which is a workplace-contextualised project. Competency Canvases help you develop and demonstrate your abilities to perform work tasks at a higher proficiency.

### • 1 Final Year Project

### • 1 Internship Programme

### • 11 General Studies Modules

These modules allow you to explore other areas of interest beyond your chosen area of specialisation.

# JAE CODE C32

## Competency Canvases

These consist of Competency Units and workplace-contextualised projects known as Work-Integration Units (WIUs).

### 1. Human-Centred Design

- Design Exploration
- Design for Communication
- Drawing & Rendering
- Storytelling Through Media
- User-Centred Studio Practice (WIU)

### 2. Design for Emotions

- 2D Digital Experience
- 3D Forms & Aesthetics
- Behavioural Insights
- Design for Emotions (WIU)
- Design Thinking for Business
- Digital Prototyping

### 3. Design for Business

- 3D Digital Visualisation
- Business Communications
- Customer Experience Design
- Design for Retail Experience (WIU)
- Phygital Design
- Service Experience & Circular Design
- Web Design

### 4. Design for Social Impact

- Collaborative Design
- Content Production
- Contextual Inquiry
- Design Entrepreneurship
- Design for Social Impact (WIU)
- Immersive Experience Design
- Interactive Prototyping

*You will take one of the following two Competency Units based on your chosen area of specialisation:*

- Retail Design & Visual Merchandising
- Web Development

*You will take one of the following two Competency Units based on your chosen area of specialisation:*

- Mobile Web Development
- Service Experience & Product Design

## Course Competencies

Completing the required Competency Units will equip you with six Course Competencies:

1. Business Design
2. Experience Prototyping
3. Immersive Experience Design
4. Service Experience Design
5. UI/UX Design
6. User-Centred Research

And one of the following two elective Course Competencies:

- 7a. 3D Experience
- 7b. Interactive Experience

## Competency Units

### YEAR 1

- 2D Digital Experience
- 3D Forms & Aesthetics
- Behavioural Insights
- Design Exploration
- Design for Communication
- Design for Emotions (WIU)
- Design Thinking for Business
- Digital Prototyping
- Drawing & Rendering
- Storytelling Through Media
- User-Centred Studio Practice (WIU)

### YEAR 2

- 3D Digital Visualisation
- Business Communications
- Collaborative Design
- Content Production
- Contextual Inquiry
- Customer Experience Design
- Design Entrepreneurship
- Immersive Experience Design
- Interactive Prototyping
- Phygital Design
- Service Experience & Circular Design
- Web Design

### SPECIALISATIONS (CHOOSE ONE)

#### 1. Specialisation in 3D Experience

- Design for Retail Experience (WIU)
- Design for Social Impact (WIU)
- Retail Design & Visual Merchandising
- Service Experience & Product Design

#### 2. Specialisation in Interactive Experience

- Design for Retail Experience (WIU)
- Design for Social Impact (WIU)
- Mobile Web Development
- Web Development

### YEAR 3

- Branding & Marketing
- Design Facilitation
- Experiential Scenario Creation
- Final Year Project (WIU)
- Internship Programme (WIU)
- Professional Portfolio (WIU)

#### 1. Specialisation in 3D Experience

- Environmental Design
- Futures Design Project (WIU)

#### 2. Specialisation in Interactive Experience

- Creative Coding
- Futures Design Project (WIU)



# Our Industry Partners

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**LESLIE FOUNTAIN**

EXECUTIVE DIRECTOR, GLOBAL XD PRACTICE LEAD, FOOLPROOF

As a global experience design company, Foolproof sees the importance of the emerging design disciplines to transform business and society. Established in Singapore in 2012, Foolproof has been active in developing the local design industry. We are pleased to see NYP's commitment to producing graduates who combine the right mix of multi-disciplinary design skills with critical thinking, data and business acumen. Your programme is needed more than ever to help regional organisations transform in our changing world to better meet the needs of people, our communities and remain sustainable. We fully endorse this programme.



**SHIGEKAWA HIDEKATU**

DIRECTOR, H.A.M CREATIONS

The course is well-defined and emphasises on the professional competencies of a designer. The programme provides good coverage of the various skills required by the industry. There is a growing need for graduates to be equipped with the skills to work in a multi-disciplinary setting and have enough knowledge and capability to contribute to an organisation beyond design. We look forward to welcoming future graduates of this course.



**CRYSTAL CHU**

CREATIVE DIRECTOR, KINGSMEN EXHIBITS

The programme will support the area of spatial design in a more holistic way. Interestingly, it is aligned to Kingsmen's way of designing by storytelling, creating experiences and visual branding. Being transdisciplinary is also important to the business of design. This will better serve the clients, stakeholders, operators and end-users. The audience is ever evolving and there is now the need to design meaningful experiences beyond spatial or visual aesthetics. The programme will facilitate the growth of the industry by providing designers who understand this emerging trend. Kingsmen is excited to see that this programme is going to support the development of such capabilities in Singapore. We will definitely welcome these future designers.

```
// Call the cScene3D's PostRender method
cScene2D->PostRender();

// glfw: swap buffers and poll IO events
// .....
glfwSwapBuffers(cSettings->pWindow);

// Perform Post Update Input
PostUpdateInputDevices();

// Poll events
glfwPollEvents();
```



**JAE CODE C70**

# Diploma in Game Development & Technology

```
_screen()
ate_wall()
update_ninja(c
draw();
f(collides_wl
decrement
immunity_c
```

## JAE CODE C70



# Diploma in Game Development & Technology

This is for you if you are curious about what runs under the hood in video games and cannot wait to code and develop your own games.

Keen to be skilled in programming and computer logic to develop PC, mobile and console games? Want to immerse yourself in cool technologies such as AR/VR and prepare for hot roles in the gaming industry?

Discover how you can hone your technical and soft skills to succeed through this robust curriculum — curated by experienced game developers, for aspiring game developers.

## This diploma lets you...

- Learn with industry leaders like Ubisoft and Epic Games coming on board to co-teach you. Look forward to projects and internship programmes.
- Learn multiple disciplines concurrently with an integrated learning approach. This makes you an agile professional who can work seamlessly across many sectors.
- Earn industry certifications from our partners like Epic Games in addition to your diploma.
- Gain dynamic career or further education opportunities locally or overseas.

## Career Paths

- 3D Graphics Programmer
- Artificial Intelligence Programmer
- Extended Reality Developer
- Game Designer
- Gameplay Programmer
- Mobile Games/Application Developer
- Scientific Visualiser/Multimedia Specialist
- Server/Cloud Programmer
- Simulation Engineer

## Benefits

- Learn in-depth technical skills to develop and programme games.
- Discover trends and be skilled in emerging technologies such as extended reality.
- Develop games on the PlayStation® platform. NYP is the only educational institution in Southeast Asia that has authorised access to the development kits.

## Course Structure

The NYP-PCM for Diploma in Game Development & Technology consists of:

### • 32 Competency Units

Within each Competency Unit, the skills and knowledge of different disciplines are integrated and taught holistically. This enables you to fulfil specific work tasks upon completion.

### • 8 Course Competencies

Each Course Competency consists of a collection of Competency Units that develops specific learning outcomes and competencies.

### • 5 Competency Canvases

Each Competency Canvas consists of a collection of Competency Units and a Work-Integration Unit (WIU), which is a workplace-contextualised project. Competency Canvases help you develop and demonstrate your abilities to perform work tasks at a higher proficiency.

### • 1 Final Year Project

### • 1 Internship Programme

### • 11 General Studies Modules

These modules allow you to explore other areas of interest beyond your chosen area of specialisation.

# JAE CODE C70

## Competency Canvases

These consist of Competency Units and workplace-contextualised projects known as Work-Integration Units (WIUs).

### 1. Interactive Storytelling

- Concept Ideation
- Interactive Storytelling Project (WIU)
- Programming
- Story through Audio & Visual

### 2. Computer Graphics Simulation

- Computer Graphics Modelling
- Computer Graphics Programming
- Computer Graphics Simulation Project (WIU)
- Data Structures & Algorithms
- Forces & Motion Programming
- Object-Oriented Programming

### 3. 2D Game Development

- 2D Game Engine Application
- 2D Game Project (WIU)
- 2D Level Design
- Game Audio Programming
- Game Physics Programming
- Gameplay Programming

### 4. 3D Game Development

- 3D Game Engine Application
- 3D Game Project (WIU)
- 3D Level Design
- Game Artificial Intelligence Programming
- Shader Optimisation

### 5. Certificate in User Interface and User Experience or Extended Reality

*You will take two of the following three sets of Competency Units:*

- 5a.
  - Business for Digital Media Industry
  - Creative Producing
- 5b.
  - Extended Reality Application Development
  - Extended Reality User Experience Design
- 5c.
  - User Interface & User Experience Design
  - User Interface Programming

*And one WIU:*

- Specialisation Project (WIU)

## Course Competencies

Completing the required Competency Units will equip you with six Course Competencies:

1. Game Design
2. Game Engine Application
3. Game Front-End Development
4. Game Level Design
5. Game Networking Development
6. Multiplatform Development

And two of the following three elective Course Competencies:

- Extended Reality Development
- Game Production
- User Interface & User Experience Development

## Competency Units

### YEAR 1

- Computer Graphics Modelling
- Computer Graphics Programming
- Computer Graphics Simulation Project (WIU)
- Computing Systems
- Concept Ideation
- Data Structures & Algorithms
- Database & Server Networking
- Forces & Motion Programming
- Game Project Management
- Gamification Techniques
- Interactive Storytelling Project (WIU)
- Object-Oriented Programming
- Principles of Game Design
- Programming
- Story through Audio & Visual

### YEAR 2

- 2D Game Engine Application
- 2D Game Project (WIU)
- 2D Level Design
- 3D Game Engine Application
- 3D Game Project (WIU)
- 3D Level Design
- Cloud Computing
- Game AI Programming
- Game Audio Programming
- Game Physics Programming
- Gameplay Programming
- Mobile Game Programming
- Multiplayer Game Programming
- Shader Optimisation
- Web Development

### YEAR 3

- Final Year Project (WIU)
- Game Console Development
- Game Story Creation
- Internship Programme (WIU)
- Specialisation Project (WIU)

*Choose two of the following three sets of Competency Units:*

- Business for Digital Media Industry
- Creative Producing

*Or*

- Extended Reality Application Development
- Extended Reality User Experience Design

*Or*

- User Interface & User Experience Design
- User Interface Programming



# Our Industry Partners

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### **GOH CHI-KEONG**

AI TECHNICAL DIRECTOR, YOOZOO GAMES

Our partnership with NYP has been enriching. We have had the privilege of working alongside its talented learners who have served as interns and subsequently as our staff. We can confidently affirm that the quality of the learners is exemplary. We are delighted to learn that NYP has made further improvements to its teaching pedagogy with the Professional Competency Model (PCM), which allows students to apply academic learning into practical work with more time and focus. We believe that this enhanced approach will provide students with better insights into the gaming industry, equipping them with the understanding and knowledge necessary to excel in this field.



### **DARRYL LONG**

MANAGING DIRECTOR, UBISOFT SINGAPORE AND UBISOFT PHILIPPINES

The PCM adopted by NYP is responsive and well-adapted to our needs in AAA game development. To keep up with our multidisciplinary, highly collaborative and fast-evolving video game industry, students need a curriculum that is strong in the core fundamentals and goes beyond teaching skills. Creating blockbuster AAA games requires creativity, critical thinking and teamwork — big-picture thinking that should be instilled in our next generation of talent as early as possible. We're delighted to see that NYP has designed a model that closely reflects the way our competitive industry works and moves students toward building core competencies rather than rote learning subjects that can quickly become outdated. We remain committed to partnering with NYP to assist in shaping our future leaders and contributing back to the video games industry.

# The SDM Experience



## Benjamin Aw

**DIPLOMA IN DIGITAL VISUAL EFFECTS**  
*(NOW KNOWN AS DIPLOMA IN ANIMATION, GAMES & VISUAL EFFECTS)*

### FANBOY GETS DREAM JOB AT TOKYO VFX STUDIO

Ben was absolutely thrilled when he heard of the internship opportunity at the storied Polygon Pictures — famed for its work on blockbusters like *Godzilla*, *Pacific Rim* and *Star Wars: The Clone Wars*.

He was so excited he completed his showreel in a breakneck four weeks. His efforts paid off.

He became one of the first few Singaporeans to intern at the studio in Minato City, Tokyo, and the first to do so at

its prestigious Shot Department — which is in charge of planning key scenes in the movie.

During the six months, Ben was given the opportunity to work on VFX for new feature films. His excellent standard of work, strong work ethic and attitude earned him an A for his internship, and better — a job offer at the company.

Ben is today living his dream and is an inspiration to his juniors.



## Evelyn Eng

**DIPLOMA IN SPATIAL DESIGN**  
*(NOW KNOWN AS DIPLOMA IN EXPERIENTIAL PRODUCT & INTERIOR DESIGN)*

### INTRIGUED BY IMPACT OF DESIGN

The Science stream student didn't think she'd consider design as a career option but things changed after a sharing session by an NYP lecturer on the Diploma in Spatial Design.

Evelyn was intrigued by how design could physically and emotionally reach people, and she loved how the diploma brought together spatial quality, environmental considerations and architecture elements.

The graduate with a perfect 4.0 GPA attributes her success to the support from her lecturers and classmates "who were there for one another through thick and thin".

She was awarded an NYP Scholarship and made it to the Director's List for all six semesters. She also represented NYP in the Polytechnic-ITE Tennis Tournament from 2017 to 2019, and won an individual Bronze medal (2017) and two team event Gold medals (2018 and 2019).

The winner of HP Innovation Design Award and LTW Designworks Gold Medal is pursuing Architecture at National University of Singapore.



## Tan Ying Ying

**DIPLOMA IN DIGITAL GAME ART & DESIGN**  
*(NOW KNOWN AS DIPLOMA IN ANIMATION, GAMES & VISUAL EFFECTS)*

### DOMINATING THE WORLD STAGE

For at least one year, Ying Ying tirelessly trained for the gruelling, 22-hour challenge in Kazan, Russia, where she was to flex her skills in 3D drawing.

And all that hard work paid off.

Ying Ying won Gold in 3D Digital Game Art at the 45<sup>th</sup> WorldSkills Competition (dubbed the "Youth Olympics of Skills").

Together with Team Singapore, she was up against more than 1,300 students from 63 countries competing in 56 skill areas.

She was also competing against powerhouses such as China, Korea and the host, Russia.

Ying Ying also won the Best of Nation award for achieving the highest score in all the skill areas that Team Singapore took part in.

# Minimum Entry Requirements

Wondering about the minimum entry requirements and aggregate scores for our courses?  
Here's everything you need to know.

## **GCE O LEVELS**

Apply through the EAE, JAE or DAE.  
Scan to find out more.



## **GCE N LEVELS**

Apply through the PFP.  
Scan to find out more.



## **EVERYTHING ELSE**

Not sitting the O or N Levels?  
Scan to find out how to apply to NYP.





Scan for more information on the  
School of Design & Media  
and its courses