# Master of Science in
GAME DEVELOPMENT AND MANAGEMENT

ABOUT THE PROGRAMME

The Master of Science in Game Development and Management (MSc-GDM) aims to address the growing need for digital professionals who fluidly combine (1) professional and technical skills in game applications and production; (2) professional knowledge of product management and innovative game development; and (3) trend analysis and research skills in interdisciplinary and collaborative projects for real-world practices.

PROGRAMME CURRICULUM

The programme follows a Dual-Cluster Approach, with 70% of the content focused on Digital Game Development (DGD) and 30% on Strategic Management and Analysis (SMA). It requires a total of 30 credits and can be completed in either one year of full-time study or two years of part-time study. Students must fulfil the graduation requirements by completing six core courses (21 credits) and three elective courses (9 credits) from five available options.

70% DGD
Digital Game Development

30% SMA
Strategic Management and Analysis
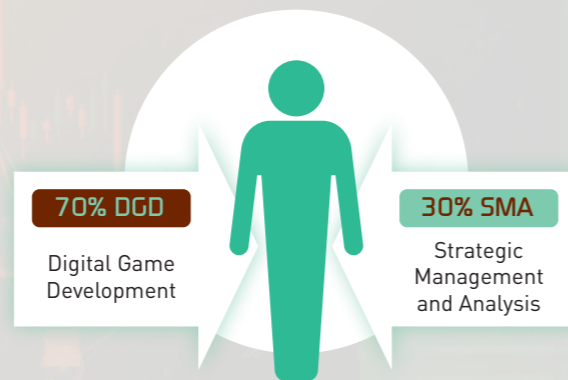
Core Courses

▶ Trend Analysis on Gaming and Entertainment	SMA
▶ Game Design and Programming	DGD
▶ Advanced Digital Processes: From Innovative Computation to Production	DGD
▶ Leadership and Entrepreneurship for Creative Industries	SMA
▶ Advanced Research Methods on Usability and Playability	DGD
▶ Research Project in Innovative Gaming and Entertainment	DGD

Elective Courses

DGD Electives :
- ▶ Interactive Design for Extended Reality (XR)
- ▶ Artificial Intelligence for Gaming and Robotics
- ▶ Selected Topics

SMA Electives :
- ▶ Managing eSports
- ▶ Strategies for Game Development

Highlights: Research Component and Industry/Technical Research-Informed Project

- ▶ The MSc-GDM involves both classroom and real-world learning. In *GDM516 Advanced Research Methods on Usability and Playability* aims to provide students with competence and proficiency in both the theory and practice of research, specifically focusing on usability and playability, which are crucial areas of research within the creative industries.

- ▶ During the final technical research-informed project, students have to undertake an industry immersion component in the *GDM517 Research Project in Innovative Gaming and Entertainment*. An industrial field trip is also offered as an optional activity, enabling students to interact with industry professionals, learn from their experiences and best practices, and gain a deeper understanding of the game development process from inception to release, as well as the current challenges faced by the industry. These industrial components aim to bridge the gap between academic learning and industry practices, preparing students for successful careers in the creative industries.

STUDY MODE

▶ Study plan for MSc-GDM **FULL-TIME** students

Year 1 Semester (Fall)

Core Courses	No. of Credits
GDM 521 Trend Analysis on Gaming and Entertainment	3
GDM 511 Game Design and Programming	3
GDM 516 Advanced Research Methods on Usability and Playability	3
Elective Courses*	No. of Credits
Elective course from DGD Cluster	3
Elective course from SMA Cluster	3
Sub-Total	**15**

Year 1 Semester (Spring)

Core Courses	No. of Credits
GDM 522 Leadership and Entrepreneurship for Creative Industry	3
GDM 512 Advanced Digital Processes: From Innovative Computation to Production	3
GDM 517 Research Project in Innovative Gaming and Entertainment #	6
Elective Courses*	No. of Credits
Elective course from DGD Cluster	3
Sub-Total	**15**

Student's proposal submitted during the winter semester break

* GDM510 Interactive Design for Extended Reality (XR)
* GDM513 Artificial Intelligence for Gaming and Robotics
* GDM515 Selected Topics
* GDM523 Managing eSports
* GDM524 Strategies for Game Development

Core Courses	21
Elective Courses	9
Total	**30**

▶ Study plan for MSc-GDM **PART-TIME** students

Year 1 Semester (Fall)

Core Courses	No. of Credits
GDM 521 Trend Analysis on Gaming and Entertainment	3
GDM 511 Game Design and Programming	3
Sub-Total	**6**

Year 1 Semester (Spring)

Core Courses	No. of Credits
GDM 512 Advanced Digital Processes: From Innovative Computation to Production	3
GDM 522 Leadership and Entrepreneurship for Creative Industry	3
Elective Courses*	No. of Credits
Elective course from DGD Cluster	3
Sub-Total	**9**

Year 2 Semester (Fall)

Core Courses	No. of Credits
GDM 516 Advanced Research Methods on Usability and Playability	3
Elective Courses*	No. of Credits
Elective course from DGD Cluster	3
Elective course from SMA Cluster	3
Sub-Total	**9**

Year 2 Semester (Spring)

Core Courses	No. of Credits
GDM 517 Research Project in Innovative Gaming and Entertainment #	6
Sub-Total	**6**

Student's proposal submitted during the winter semester break

* GDM510 Interactive Design for Extended Reality (XR)
* GDM513 Artificial Intelligence for Gaming and Robotics
* GDM515 Selected Topics
* GDM523 Managing eSports
* GDM524 Strategies for Game Development

Core Courses	21
Elective Courses	9
Total	**30**

CAREER PROSPECTS

Game Producer

Digital Entertainment Producer

AIR developer

Game Designer

eSport Manager

▶ Graduates of the Programme are equipped to pursue careers as game designers, game producers, AIR managers, digital game data scientists, eSports managers, digital entertainment producers, game and AIR programmers, UX/UI designers, and indie game and AIR developers.

ADMISSION REQUIREMENTS

Applicants should hold a recognised bachelor's degree in digital media, computer science, digital business, or other related areas from an institution recognised by the University. Both recent graduates and individuals with relevant industry experience are encouraged to apply.

English Language Requirements :

Fluency in English, in both oral and written forms, is required of all applicants. Applicants with degrees from an institution where the medium of instruction is English will be assumed to have met this requirement.

Applicants whose entrance qualification is obtained from an institution where the medium of instruction is not English should also fulfil the following minimum English proficiency requirement.

▶ Overall score 6.0 in International English Language Testing System (IELTS) (Academic), with no subtest score lower than 5.5;

▶ Score 550 (Paper-based test) or 80 (Internet-based test) in TOEFL;

▶ CET6 450; (OR)

▶ Other equivalent qualifications.

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