

MA/MSc Computer Games

Programme Specification

Awarding Institution:

University of London (Interim Exit Awards made by Goldsmiths' College)

Teaching Institution: Goldsmiths, University of London

Final Award: MA/MSc

Programme Name:

MA Computer Games (Art & Design) Internship Pathway

MSc Computer Games (Programming) Internship Pathway

MA Computer Games (Art & Design) Research Pathway

MSc Computer Games (Programming) Research Pathway

Total credit value for programme: 180

Name of Interim Exit Award(s):

Postgraduate Certificate in Computer Games (Art & Design)

Postgraduate Certificate in Computer Games (Programming)

Postgraduate Diploma in Computer Games (Art & Design)

Postgraduate Diploma in Computer Games (Programming)

Duration of Programme: 1 year full-time or 2-3 years part-time

UCAS Code(s): Not applicable

HECoS Code(s): (100363) Computer Animation and Visual Effects

QAA Benchmark Group: Computing

FHEQ Level of Award: Level 7

Programme accredited by: Not applicable

Date Programme Specification last updated/approved: April 2023

Home Department: Computing

Department(s) which will also be involved in teaching part of the programme:

Not applicable

Programme overview

As a fast-growing 150-billion-dollar business, the game industry offers countless professional opportunities. The MA & MSc Computer Games is the right programme for students who want to make game development a sustainable career and to work in this creative and rewarding industry. This is also one of the only programmes taught by actual game developers, designers, and artists with years of experience in the game industry.

Two pathways are available to mirror the two main aspects of game development.

Students from both pathways will learn multi-platform game development, with a strong focus on business and entrepreneurship, including the possibility to work with industry partners as part of your internship.

Students in the MA Computer Games (Art & Design pathway) will focus on design and asset creation, including 3D modelling and animation.

Students in the MSc Computer Games (Programming pathway) will focus on programming skills and mathematical knowledge.

Both programmes are taught in a very creative environment, working alongside students learning to be artists, musicians, writers, choreographers, creators, with plenty of opportunities to collaborate and to use new technologies in their own practice.

Students keen to take part in a research project, rather than an internship, can enroll in the respective Research pathway of the MA and MSc Computer Games programmes. Both research and internship pathways are equivalent in terms of modules, but only differ in the nature of the final project.

When not otherwise specified, the term MA/MSc Computer Games will refer to both research and internship pathways.

Programme entry requirements

This Master programme is aimed at graduates with an interest in working and intervening in computing in the Games and related industries (e.g. TV, Film, Design, Advertising and VR/AR/MR).

Candidates will normally have an undergraduate degree in a relevant field, such as fine art, modelling, design, animation or game design (for the MA Computer Games); or programming, computing, engineering, game development (for the MSc Computer Games).

In all cases, applicants will be expected to be interested in and capable of working in interdisciplinary contexts. An upper second class honours degree or its equivalent in a relevant discipline is normally required. In exceptional circumstances, outstanding practitioners, or individuals with strong commercial experience may arrive at the course via other routes. Non-native speakers of English will normally have to satisfy the University of London requirements of IELTS (6.5), and may be encouraged to use the resources of the English Language Centre

Candidates will be required to demonstrate sufficient proficiency in industrially relevant skills prior to being accepted and enrolled on the programme. In some cases, an interview might be suggested to better understand which programme might be better suited for the candidate.

As part of the application, all candidates will be expected to present a small portfolio of relevant work. While games-related pieces are encouraged, anything creative that can show a student's skills and passion is welcome.

Programme learning outcomes

Students who successfully complete either pathway in the Postgraduate Certificate will demonstrate:

Knowledge and understanding

Code	Learning outcome	Taught by the following module(s)
A1	Show knowledge and ability with the main concepts and methodologies of the games and interactive entertainment.	All taught modules
A2	Understand the collaborative and team management aspects of projects that	All taught modules

	operate in the context of games and interactive entertainment.	
A3	Game development in an industry-relevant language (typically, in C++/Unreal and C#/Unity)	Games Programming Programming for Game Engines

MA Computer Games (Art & Design pathway) only:

A4	Apply the taught design, art, modelling and animation concepts in a computer game	Modelling & Animation 1 Modelling & Animation 2
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MSc Computer Games (Programming pathway) only:

A4	Apply the taught design and programming concepts in a computer game	Games Programming Procedural Generation & Emergent Systems AI for Games
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MA/MSc Computer Games (internship pathways) only:

A5	Prepare for a job in the game industry, and learn how to work as part of a team in an industry setting	Internship in Computer Games Game Business and Practice
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Cognitive and thinking skills

Code	Learning outcome	Taught by the following module(s)
B1	Be able to efficiently design a software or a system to fulfill a given high-level task (e.g., for an interactive computer vision game application)	Games Programming
B2	Be able to come up with original and innovative ideas that fit the context, both creative and technical.	All taught modules
B3	Be conversant with the Games industry, with terminology and current state of the industry in multiple format areas and articulate views and opinions.	All taught modules

B4	Evaluate and debate cultural themes and technical dimensions in the historical context of art, computer games and the wider technical environment and trends	Final Project in Computer Games OR Internship in Computer Games
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Subject specific skills and professional behaviours and attitudes

Code	Learning outcome	Taught by the following module(s)
C1	Be able to devise projects and other forms of research that actively work with and test the main concepts and methodologies of the games industry.	All taught modules
C2	Be comfortable and familiar with team work under tight scheduling.	All taught modules Final Project in Computer Games OR Internship in Computer Games
C3	Explore and use a range of technologies, middlewares and languages (both compiled and scripted)	Games Programming 1 Programming for Game Engines
C4	Be familiar with the main software project management techniques, e.g., waterfall, agile, xp, x-discipline, and critically evaluate those approaches.	Game Business and Practice (for students doing internships)
C5	Be able to able to work in a team in a commercial product development environment and engage in production issues and where appropriate management issues, to be an effective team member.	Game Business and Practice (for students doing internships) Final Project in Computer Games OR Internship in Computer Games

MA Computer Games (Art & Design pathway) only:

C6	Experience in evaluating a particular research question of relevance to computer games or game design.	Final Project in Computer Games OR
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		Internship in Computer Games
C7	Independent development of a design piece in support of the explored research question.	Final Project in Computer Games OR Internship in Computer Games

MSc Computer Games (Programming pathway) only:

C6	Experience in evaluating a particular research question of relevance to computer games or entertainment graphic systems.	Final Project in Computer Games OR Internship in Computer Games
C7	Independent development of a piece of software in support of the explored research question.	Final Project in Computer Games OR Internship in Computer Games

Transferable skills

Code	Learning outcome	Taught by the following module(s)
D1	Develop the ability to work in a multidisciplinary context (games software/production, maths, business/IP, presentation/marketing, art/design, cultural/social impacts) and to transfer information and collaborative materials from one kind of work to another.	All taught modules Final Project in Computer Games OR Internship in Computer Games
D2	To be able to develop learning strategies for the ongoing acquisition of skills and knowledge.	All taught modules
D3	To be able to communicate ideas, plans and projects to different kinds of collaborators	All taught modules
D4	To design, take part in and lead team-based projects, as well as be able to plan and undertake independent projects.	All taught modules
D5	To be able to produce extended written work of a high academic standard.	All taught modules

D6	To be able to orally present (e.g., in seminars) state-of-the- art research in the studied fields (e.g., in computer graphics).	All taught modules Final Project in Computer Games OR Internship in Computer Games
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MA Computer Games (Art & Design pathway) only:

D7	Understand and apply the concept behind art and design in the context of computer games	Final Project in Computer Games OR Internship in Computer Games
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MSc Computer Games (Programming pathway) only:

D7	Understand and apply the concept behind game and programming in the context of computer games	Final Project in Computer Games OR Internship in Computer Games
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Mode of study

On Campus

Programme structure

This Master programme addresses the pressing need for a high-quality postgraduate degree serving the computer games, creative and entertainment industries. This programme gives students professional-level games design, art and animation skills, as well as exposure to the fundamentals of computer programming, development tools, pipelines and entrepreneurship / business skills. The programme uses and extends our close relationship with the games and entertainment industries.

In addition, the programme encourages the development of the students' personal creativity in designing and building their own games as part of lab work and assignments, enabling them to build a strong personal portfolio.

At the end of their studies, students will either work on a research project or take part in an internship with a game-related company to kickstart their career.

Students in the MA and MSc Computer Games have the choice of doing either an internship with an external company, or a research project and will enrol on the relevant pathway which will be reflected in their final award title. In all other respects, the internship and research pathways are equivalent to each other; the only difference is the final project. Under certain circumstances, it may be possible to switch between the internship and research pathway (if, for example a student is not able to arrange an internship).

MA Computer Games (Art and Design) Internship Pathway

Full-time mode

Module Title	Module Code	Credits	Level	Module Status	Term
Games Programming 1 OR Visual Game Development	TBC	15	7	Compulsory	1
Modelling & Animation 1	TBC	15	7	Compulsory	1
Modelling & Animation 2	TBC	15	7	Compulsory	2
Games Design and Analytics	TBC	15	7	Compulsory	2
Option modules to the value of 60 CATS (from a list annually approved by the Department) Students doing internships are strongly recommended to take “Games Business and Practice” as one of their options in Term 1	Various	60	7	Optional	1,2
Internship in Computer Games	TBC	60	7	Compulsory	3

Students in the MA CG with no previous experience of programming, should take “Visual Game Development” as their compulsory programming module. Students with programming experience should take “Games Programming 1” instead.

“Game Business and Practice” is strongly recommended as an elective to students who are taking an internship (i.e. students on either Internship pathways). It is not, however, a core module. This means that students on the Research pathways to later transfer to the respective Internship pathway during the year will not need to attend this module if they have not done so previously.

MA Computer Games (Art and Design) Research Pathway

Full-time mode

Module Title	Module Code	Credits	Level	Module Status	Term
Games Programming 1 OR Visual Game Development	TBC	15	7	Compulsory	1
Modelling & Animation 1	TBC	15	7	Compulsory	1
Modelling & Animation 2	TBC	15	7	Compulsory	2
Games Design and Analytics	TBC	15	7	Compulsory	2
Option modules to the value of 60 CATS (from a list annually approved by the Department)	Various	60	7	Optional	1,2
Final Project in Computer Games	TBC	60	7	Compulsory	3

MA Computer Games (Art and Design) Internship Pathway

Part-time mode

Academic year of study 1

Module Title	Module Code	Credits	Level	Module Status	Term
Games Programming 1 OR Visual Game Development	TBC	15	7	Compulsory	1
Modelling & Animation 1	TBC	15	7	Compulsory	1

Games Design and Analytics	TBC	15	7	Compulsory	2
Modelling & Animation 2	TBC	15	7	Compulsory	2

Academic year of study 2

Module Title	Module Code	Credits	Level	Module Status	Term
Business and Practice (strongly recommended for students doing internships) OR Optional from Term 1 List	TBC	15	7	Compulsory	1
Internship in Computer Games	TBC	60	7	Compulsory	3
Optional modules to the value of 45 CATS (from a list annually approved by the Department) depending on what has been taken in year 1.	Various	45	7	Optional	1,2,3

A different module allocation for part-time students can be agreed, if necessary.

MA Computer Games (Art and Design) Research Pathway

Part-time mode

Academic year of study 1

Module Title	Module Code	Credits	Level	Module Status	Term
Games Programming 1 OR Visual Game Development	TBC	15	7	Compulsory	1
Modelling & Animation 1	TBC	15	7	Compulsory	1
Games Design and Analytics	TBC	15	7	Compulsory	2
Modelling & Animation 2	TBC	15	7	Compulsory	2

Academic year of study 2

Module Title	Module Code	Credits	Level	Module Status	Term
Business and Practice	TBC	15	7	Compulsory	1
OR					
Optional from Term 1 List					
Final Project in Computer Games	TBC	60	7	Compulsory	3
Optional modules to the value of 45 CATS (from a list annually approved by the Department) depending on what has been taken in year 1.	Various	45	7	Optional	1,2,3

A different module allocation for part-time students can be agreed, if necessary.

MSc Computer Games (Programming) Internship Pathway

Full-time mode

Module Title	Module Code	Credits	Level	Module Status	Term
Games Programming 1	TBC	15	7	Compulsory	1
Mathematics for Games and V&AR	TBC	15	7	Compulsory	1
Programming for Game Engines	TBC	15	7	Compulsory	2
Games Design and Analytics	TBC	15	7	Compulsory	2
Option modules to the value of 60 CATS (from a list annually approved by the Department)	Various	60	7	Optional	1,2
Students doing internships are strongly recommended to take "Games Business					

and Practice” as one of their optionals in Term 1					
Internship in Computer Games	TBC	60	7	Compulsory	3

MSc Computer Games (Programming) Research Pathway

Full-time mode

Module Title	Module Code	Credits	Level	Module Status	Term
Games Programming 1	TBC	15	7	Compulsory	1
Mathematics for Games and V&AR	TBC	15	7	Compulsory	1
Programming for Game Engines	TBC	15	7	Compulsory	2
Games Design and Analytics	TBC	15	7	Compulsory	2
Option modules to the value of 60 CATS (from a list annually approved by the Department)	Various	60	7	Optional	1,2
Final Project in Computer Games	TBC	60	7	Compulsory	3

MSc Computer Games (Programming) Internship Pathway

Part-time mode

Academic year of study 1

Module Title	Module Code	Credits	Level	Module Status	Term
Games Programming 1	TBC	15	7	Compulsory	1
Mathematics for Games and V&AR	TBC	15	7	Compulsory	1
Games Design and Analytics	TBC	15	7	Compulsory	2
Programming for Game Engines	TBC	15	7	Compulsory	2

Academic year of study 2

Module Title	Module Code	Credits	Level	Module Status	Term
Business and Practice (strongly recommended for students doing internships) OR Optional from Term 1 List	TBC	15	7	Compulsory	1
Internship in Computer Games	TBC	60	7	Compulsory	3
Optional modules to the value of 45 CATS (from a list annually approved by the Department) depending on what has been taken in year 1.	Various	45	7	Optional	1,2,3

A different module allocation for part-time students can be agreed, if necessary.

MSc Computer Games Research (Programming) Research Pathway

Part-time mode

Academic year of study 1

Module Title	Module Code	Credits	Level	Module Status	Term
Games Programming 1	TBC	15	7	Compulsory	1
Mathematics for Games and V&AR	TBC	15	7	Compulsory	1
Games Design and Analytics	TBC	15	7	Compulsory	2
Programming for Game Engines	TBC	15	7	Compulsory	2

Academic year of study 2

Module Title	Module Code	Credits	Level	Module Status	Term
Business and Practice OR Optional from Term 1 List	TBC	15	7	Compulsory	1
Final Project in Computer Games	TBC	60	7	Compulsory	3
Optional modules to the value of 45 CATS (from a list annually approved by the Department) depending on what has been taken in year 1.	Various	45	7	Optional	1,2,3

A different module allocation for part-time students can be agreed, if necessary.

Academic support

Support for learning and wellbeing is provided in a number of ways by departments and College support services who work collaboratively to ensure students get the right help to reach their best potential both academically and personally.

All students are allocated a Personal Tutor (one in each department for joint programmes) who has overall responsibility for their individual progress and welfare. Personal Tutors meet with their student at least three a year either face-to-face, as part of a group and/or electronically. The first meeting normally takes place within the first few weeks of the autumn term. Personal Tutors are also available to students throughout the year of study. These meetings aim to discuss progress on modules, discussion of the academic discipline and reports from previous years if available (for continuing students). This provides an opportunity for progress, attendance and assessment marks to be reviewed and an informed discussion to take place about how to strengthen individual learning and success.

All students are also allocated a Senior Tutor to enable them to speak to an experienced academic member of staff about any issues which are negatively impacting their academic study and which are beyond the normal scope of issues handled by Programme Convenors and Personal Tutors.

Students are provided with information about learning resources, the [Library](#) and information available on [Learn.gold \(VLE\)](#) so that they have access to department/programme handbooks, programme information and support related information and guidance.

Taught sessions and lectures provide overviews of themes, which students are encouraged to complement with intensive reading for presentation and discussion with peers at seminars. Assessments build on lectures and seminars so students are expected to attend all taught sessions to build knowledge and their own understanding of their chosen discipline.

All assessed work is accompanied by some form of feedback to ensure that students' work is on the right track. It may come in a variety of forms ranging from written comments on a marked essay to oral and written feedback on developing projects and practice as they attend workshops.

Students may be referred to specialist student services by department staff or they may access support services independently. Information about support services is provided on the [Goldsmiths website](#) and for new students through new starter information and induction/Welcome Week. Any support recommendations that are made are agreed with the student and communicated to the department so that adjustments to learning and teaching are able to be implemented at a department level and students can be reassured that arrangements are in place. Opportunities are provided for students to review their support arrangements should their circumstances change. The [Disability](#) and [Wellbeing](#) Services maintain caseloads of students and provide on-going support.

The [Careers Service](#) provides central support for skills enhancement, running [The Gold Award](#) scheme and other co-curricular activities that are accredited via the Higher Education Achievement Report ([HEAR](#)).

The [Centre for Academic Language and Literacies](#) works with academic departments offering bespoke academic literacy sessions. It also provides a programme of academic skills workshops and one-to-one provision for students throughout the year .

Placement opportunities

Students are able to take a paid placement in place of an academic final project. We have a strong network of Games companies and studios and have succeeded in placing a large number of students, the majority of which have gone on to permanent jobs in the organisation. In addition to paid commercial placement, we offer the option of projects that

are sponsored and co-supervised by non-profit organisations or other academic departments or institutions.

Employability and potential career opportunities

Our programme opens up multiple career options including:

- 2D and 3D Modeller or animator for the Games, XR, Film and TV Special Effects Industry. (Art and Design Pathway)
- Programmer in the Games Industry, including casual, mobile, PC and console games (Programming Pathway)
- Computer Games Designer or Level designer in the Games Industry, including casual, mobile, PC and console games (Programming Pathway)
- Producer in a Games Development Company, leading to senior management roles. Creative Lead at robotics development company for entertainment industry.
- Computer Games Developer for the Serious Games and Gamification Sectors.
- Creative Games and Interactive Technical Lead in an Advertising Agency.
- Creative Director Role in small or medium company.

Students are supported from the start to the finish of this programme in order to understand the different potential career journeys they can follow and to build a portfolio of work to demonstrate their capability to gain employment or freelance work in that area. Assessment has been designed to facilitate this process through the development of transferable or soft skills listed in the section above. Regular guest lectures from industry support the development of sector knowledge and awareness of different career paths.

The Department's External Advisory Board ensures relevance of all our programmes to the current and future needs of employers. All programmes are designed in consultation with employers to make sure you develop transferable skills to improve your career opportunities and you will be applying your skills to real-world problems through live project briefs and group projects. The board and other employers attend showcase events where you can present your ideas, get feedback and build important connections.

We have dedicated employability resource within the department to build employer relations and manage additional initiatives to support your future career opportunities, including regular communication of external opportunities for mentoring and work experience and an annual Career week (a focussed week of career support every June in the department where you can access alumni panels by programme and a range of industry talks)

The MA Computer Games is the perfect fit for anyone who is – or wants to be – in one of the following positions:

- People who want to find a job in the game and entertainment industries
- Game designers who want to learn how to code to bring their ideas to life
- 3D Artists, riggers, and animators who want to master state-of-the-art modelling software
- Character artists and concept artists and who want to create assets for games
- Game developers who want to improve their programming skills
- Creative folks who want to use interactive technologies for their projects

The MSc Computer Games Programming is the perfect fit for:

- People who want to find a job in the game and entertainment industries
- Programmers who want to learn how to create games
- Game Developers who want to improve their programming skills
- Technical Artists who want to use code to create interactive and procedural artworks
- Game Designers who want to learn coding to bring their ideas to life
- Creative folks who want to use interactive technologies for their projects

Programme-specific requirements

Tuition fee costs

Information on tuition fee costs is available at: <https://www.gold.ac.uk/students/fee-support/>

Specific programme costs

Not applicable