

Course outline: MFA Games Design & Development

The MFA in Games Design & Development is a specialisation within the broader **MFA in Film, Television and Games**.

Video games represent the fastest growing media form in human history. Now a global phenomenon, games have gained substantial respect from both the public and the private sector. The massive potential of the medium for innovation and pushing boundaries is widely acknowledged.

Game design and development is a multi-disciplinary endeavour, an intersection between art and science, and the Games MFA course reflects this. Students are offered broad and deep education in game design, game production, development and art/animation and others. Core knowledge is delivered by industry experts in their respective fields, and alongside these sessions, students undertake a range of practical projects which develop solid skills in all areas, as well as the ability to work effectively across multi-disciplinary teams.

Taught modules focus on game design and development, from creative, technical and commercial standpoints. This learning is complemented by practical art skills, essential business know-how, and other key subjects, such as sound and music for games. All students undertake a programming and technology primer to gain a working knowledge of the technical underbelly of games development, alongside practical skills in game scripting languages. More advanced subsequent technical expertise in software engineering or 3D animation and modelling is available to students on a project-by-project basis or through internal and external collaboration.

The overall emphasis of the games course is on creativity and innovation; students acquire the advanced skills and expertise required to make games to the best industry standards, and develop the vision and temperament for contributing to how the games industry evolves in the future.

Year One

The first year contains five assessed modules, and a wealth of other exercises and workshops:

- Module 1 – Hello World
- Module 2 – Code Camp
- Module 3 – App Factory
- Module 4 – Synthespians
- Module 5 – Moments of Consequence

Module 1: Hello World

Build a Playable Game Environment

Using a Game Engine, 3D modelling, texturing and related software, students work in groups to design and build a navigable 3D game environment for a first-person perspective, single-player experience. The player must be able to interact with the environment meaningfully. Lighting should be expressive, the camera responsive, and audio should be embedded throughout. The specific design and theme of the world is to be decided. Students should collectively design the environment alongside tutor guidance. Each student must respectfully negotiate which 'section' of the world they will build individually. Further, students are required to take on additional role(s) to support the project. Depending on the project, some roles may include:

- Project Manager
- Technical Director / Pipeline
- Programmer
- Level Designer
- Dynamics and Visual Effects Designer
- Narrative Designer
- Camera & Lighting Designer
- Sound/Audio Designer

Module 2: Code Camp

The Fundamentals of Programming

Code Camp is a short but intensive module in games programming and in programming fundamentals more generally. The module explores C# as a scripting language and its use inside the Unity engine for creating gameplay. Critical concepts are explored, such as variables, functions, loops, classes, components and more. Students work individually by applying their programming knowledge to create a short, mechanics-driven experience.

Module 3: App Factory

Design and Build a Mobile Game

Using Unity and related tools (such as Maya and Photoshop), students work individually within the games cohort to design and implement a mechanics-focused game for a mobile device, either iOS or Android (or both). Students should arrive at a feasible design with guidance from tutors and then implement that design, creatively applying their coding and development skills.

Module 4: Synthespians

Create an Interactive Drama

In Synthespians, students work individually to develop a short, story-driven experience featuring one or more interactive 3D characters. The game must be compatible for desktop computers and it should be based on the creative interpretation of a culturally significant art work or an event that impacts the human situation. This module challenges and encourages students to deliver an engaging story expressed through animated and interactive 3D characters. Students are welcome to create the game for VR (Oculus Rift).

Module 5: Moments of Consequence

Gaming and Experiences

Using the technical knowledge and creative skills from previous modules, students work collectively in small teams. Each team must negotiate a design and build a dramatic, interactive experience in collaboration with screenwriters, producers, production designers, sound designers and VFX artists where appropriate. This is primarily an exercise in drama and its orchestration through interactivity; an ambitious, multidisciplinary culmination of the first year's work.

Other Seminars and Activities

Alongside and in between the Modules there are a number of exercises, workshops and seminars including:

Springboard Cross Specialisation Introductory Weeklong Workshop

A cross-school and interdisciplinary introduction to film, television and games; looking at cinematic language through the lens of storytelling. It investigates how the main crafts of digital arts relate to the way storytelling puts across narrative ideas. This is an excellent introduction to the school, an opportunity to meet new students on all MFA courses, and a high-level introduction to themes that stretch across all art forms.

Core Skills

This introductory workshop explores the foundations of games design and development. It considers fundamental software and technical skills, as well as high-level design skills. It is a solid preparatory ground for the Hello World module.

Life drawing classes

A number of practical life drawing sessions typically organised in spring/summer to equip students with the confidence to use traditional drawing techniques to communicate their ideas and create visual designs for characters and environments.

Game events

Throughout the year we will be attending some of the key game events in the UK, such as WASD, Develop Brighton and EGX.

Year Two

The second year is focused primarily on production of students' Graduation or Final Major Project (FMP): this is predominantly practical, but this work is complimented by masterclasses from industry specialists and further academic input from tutors. Students continue to develop their knowledge and skills, demonstrating their creativity through

applied knowledge and original practice, and becoming independent learners and creatives as they work with others on a portfolio project.

Final Major Project development is structured around a series of measurable milestones: initially students are encouraged to specify, document and present embryonic ideas, and these are carefully developed into more tangible design specifications and initial prototypes. Students present their ideas to other specialisms within the NFTS with a view to building the right team of peers to work alongside them from other departments, and where required occasionally from outside the NFTS.

The second year also includes short advanced cross-disciplinary workshops, project-focussed workshops in crucial aspects of game development, design and production management, and industry guest speaker presentations / one-to-one sessions to discuss on-going projects with students. Students also attend workshops focusing on the business of games and career development workshops as they prepare to enter industry.

The second year contains the following assessed module:

- Module 6 – Final Major Project

Module 6: Graduation or Final Major Project

The Final Major Project (FMP) represents the culmination of student skills and knowledge applied to a single, dedicated game project showcasing their creativity and learning. Engagement with other MFA disciplines at the NFTS is encouraged and facilitated during development to provide additional expertise in specific areas and for additional creative resources, both conceptually and practically – this may include Cinematography, Sound Design, Production, Animation, Composing and VFX.

Each project is allocated a budget that may be used to buy additional technical expertise, additional art assets, voice talent, or any other element necessary to make cost-effective contributions.

Final Major Project work will be supported by tutorials, progress workshops and group seminars delivered by tutors and specialist practitioners at each stage. Students are encouraged to share resources, expertise and best practice with the rest of their cohort.

Dissertation

During the year the students also complete their Dissertation module (the outline of which is delivered in Year 1).

As part of the work necessary to qualify for an MFA, each student is required to produce an independent written dissertation or video essay. This runs from the start of the 1st Year to November of the 2nd Year. Following discussions with the Games Design & Development Department Dissertation Tutor, and Screen Arts tutors in the first half of the 1st year, students deliver 500-word outline proposal by June of the 1st year; 2000-word detailed proposal and structure by November of 1st Year (students may not progress into 2nd year if they fail to deliver this). Full draft dissertation of 7,000-10,000 words (including sources and bibliography) must be delivered by October of 2nd Year and following discussion with tutors, final version of dissertation by November of the 2nd Year.

An alternative option of a twenty minute video essay is also available to MFA students.

The aim should be to undertake original research of an investigative nature, which extends the boundaries of specialist knowledge within particular areas of games design & development.

The dissertation may encompass any aspect of games, the industry and its impact on gamers, culture and society. Students are advised to use the dissertation to help explore and develop their own practice, interests and identities as game designers and developers.

Other Seminars and Activities

Additionally, during the second-year students continue to develop their own projects and take part in a series of seminars, tutorials, and meetings with industry specialists in Games design & development.

Including:

Management and Leadership Tuition

A number of tutorials and seminars spread over both years, with the aim of equipping the Game students to function effectively as team leaders, managers and entrepreneurs.

Into the Industry – Career Development

This is a short series of seminars, tutorials and possible studio visits, designed to prepare students for their next career move. In addition to up-to-date insight on industry opportunities, students are offered CV and self-marketing surgeries, advice on digital portfolio presentation, setting up a small development studio, freelancing and other career development information.

Students have their work presented to the industry through the showcase at the NFTS graduation show in central London. Additionally, students are encouraged to submit their projects to all appropriate competitions and festivals, for example Nordic Games in Sweden, PC Gamer Weekender in London, and the Independent Games Festival (IGF) at GDC San Francisco in February, and assistance will be provided to do this where possible.

Student work can be showcased and promoted via the NFTS games websites and associated portals, including play-throughs, playable demos, prototypes and full versions of work where appropriate. This will form a useful repository of past and present work from the course.

Game events

Throughout the year we will be attending some of the key game events in the UK, such as WASD, Develop Brighton and EGX.