

FROM GAME CONCEPT TO PLAYABLE PROTOTYPE

Thom Kaczmarek*

University: University of the Arts London

College/School: London College of Communication / Screen School

Department/Program: Moving Image and Digital Arts / BA (Hons) Games Design

Level: Undergraduate (Level 4 – 1st year of 3-year-long BA)

Credits: 40 (UK) equivalent of 10 Semester Credits or 15 Quarter Credits (USA)

Length: 14 weeks

Medium: Face-to-Face with Blended/Hybrid provision

Keywords: Game Design Patterns, Finite State Machines, Gameplay Scripting, Game Design Documents, Playful Learning, Gamification, Waterfall Development.

CATALOG DESCRIPTION

This unit (UK) / course (USA) will support students in further developing their technical and game design skill sets through playful experimentation with the fundamentals already taught in prerequisite units, the 'Programming and Technical Design for Games' (this can be viewed as an introduction to Computer Science within Game Engine) and 'Introduction to Game Design'. Students will put theory into practice to challenge and advance themselves. This will be achieved through an introduction to the professional game design pipeline, including:

- Pitching game ideas within the remit of the given topic
- Creating industry documentation, which, through the use of rules, will communicate the experience of play within the technical Game Design Document.
- Proving that the idea works in practice through the development of a working digital game prototype based on the approved and annotated version of the technical Game Design Document of the students' own making
- Challenging the initial assumptions and digital decisions through playtesting and evaluating the findings, students will examine the player's emotional response, physical and psychological effects, and the cognitive processing required to complete the game.

The game will be set within a narrative framework initially pitched, and will include the application, interface, and game loop, and will implement feedback from testing sessions. Using the programming techniques taught in prerequisite units/courses, students will implement the functionality needed to experience the challenge as defined by the rules stated in the design documents.

COURSE PURPOSE AND OBJECTIVES

This unit/course assessment is holistic and will assign a single letter grade (worth 100% of the unit).

At University of the Arts London, we embed Climate, Racial, and Social Justice principles in our education materials (UAL, 2022). In this unit/course, we ask students to pitch game ideas based on myth and folklore that are personally relatable to them. We do this because we would like our students to reflect on who they are, where they come from, and, consequently, on their trajectory.

* Thom Kaczmarek is an award-winning gamedev (1997-), academician (2018-) and founder of www.gic.gd (2007-)

This unit/course also gives students almost total creative control over their game. As students take part in and complete 'Introduction to Game Design' beforehand, they are expected to go beyond just an idea or a game design document (which the teaching team assesses and pre-approves). Furthermore, as they were taught 'Programming and Technical Design for Games', they are expected to develop a playable game, start to finish. Using only the programming techniques they have been taught, students will be expected to add the functionality required to implement the challenge, as defined by the rules in the technical Game Design Documentation (GDD) they authored.

Learning Outcomes (LO)

At UAL, students' work is marked against up to 5 assessment criteria. They are being used to help guide students' learning, and they are as follows:

- **Enquiry:** active learning and reflection. It is how students explore, research and learn about their subject. Enquiry is central to all creative learning at UAL.
- **Knowledge:** how students inform their work, explore diverse cultures and connections and appreciate what they do in a wider context.
- **Process:** students' journey of learning. It is how they take risks and experiment, moreover, how they keep the creative momentum going – developing ideas from start to finish.
- **Communication:** telling the story of their learning and making. It is how they share their learning with an audience, presenting and explaining their work to different people.
- **Realisation:** the work students create and how this reveals what they have learned. It is a look back at the work produced and an evaluation of it.

For this assessment, the used criteria are **Realisation**, **Process** and **Knowledge**, represented within the following Learning Outcomes:

- **LO1:** Demonstrate the ability to build digital game mechanics by applying coding techniques from visual and text-based designs (**Realisation, Process**)
 - **GDD:** The concepts and theories used to inform student design and their application will be evidenced by the Matrix, Object Models, Entity-Relationship Diagrams, and Finite State Machines placed in the respective sections of the technical Game Design Document.
 - **Game:** The mapping of mechanics from the GDD to the working digital prototype will evidence this. The effectiveness of the prototype will be evaluated based on dropped/enhanced features and mechanics, implemented workarounds, and execution efficiency.
- **LO2:** Develop the game systems which include emergent qualities and respond to player achievement (**Knowledge, Realisation**)
 - **In GDD:** Any emergent phenomena and dynamics will be evidenced and discussed in the technical Game Design Document, as will the experience of play in terms of player strategies, and the events and actions which will make this possible will also be evidenced in sufficient detail.
 - **In Game:** Emergent qualities will be evidenced through the application and balancing of rules related to the game elements presented. Player achievement will be evidenced by feedback from the game systems.
 - **In Evaluation:** emergent qualities will be discussed and analysed for their potential to increase player engagement and the achievement of game mastery.
- **LO3:** Create the appropriate visual feedback for all of the experiences presented by the game (**Knowledge, Realisation**)

- In GDD: The types of challenges used in the student game will be documented in their Game Design Document, along with the rules for the objects and the behaviours that enable them.
- In-Game: Visual feedback will be provided through the game's communication with the player regarding any in-game actions.
- In Evaluation: Provide supporting materials such as pre/post change screenshots, access to survey results with graphs, etc.
- LO4: Evaluate game experience in terms of accessibility and play (**Knowledge, Process**)
 - GDD: Will show the experience of play, formal systems, and visual content, all evidenced using the appropriate techniques and tools, as taught in class.
 - Evaluation: Reflection on the player's level of understanding of the game, relative to the challenging nature of the game designed by the student in GDD, will be evidenced through ongoing Evaluation of their game using the provided template.

COURSE CONTEXT

At University of the Arts London (UAL), courses (UK) / majors (USA) come with pre-packaged units (UK) / courses (USA), and students cannot pick and choose what they want to study to collect the required number of credits. UAL has been ranked second in the world for Art and Design in the QS World University Rankings® since 2018. Furthermore, as an art institution, we do have a strong "auteur culture" that results not only in 25% of our graduates being self-employed post-graduation but also in our being the number 1 higher education institution for producing start-ups (UAL, 2026a). However, approximately 20% of the student body identifies as disabled, neurodivergent (such as ADHD or dyslexia), or has a long-term health or mental health condition, impacting the priorities and delivery structure. Consequently, the submission structure and requirements for this unit/course must support our diverse learners while also meeting industry standards and expectations to maintain our reputation and ranking.

Any student participating in this unit/course (which takes place in the second half of the academic year) would have either passed or failed (and be on resubmission) for 'Programming and Technical Design for Games' and 'Introduction to Games Design', but they will be expected to deliver a playable game of their own unique design.

As our students are an international cohort, we do our best to play to this strength and require them to look into their own heritage (bloodline, geographical, linguistic, spiritual, customs, cultural, societal) for inspiration, which helps ensure that no two first-year students' final piece of work is the same.

COURSE PEDAGOGY

Industry is very vocal about killing your own darlings (Chen, 2026), and this is fundamentally our pedagogy here.

The unit/course utilises various playful activities to help students contextualise all stages of the development cycle and their submission, to help polish their projects against the learning outcomes. We use traditional analogue and digital games as well as pop culture references (TV series, Movies, Music, Podcasts) to help contextualise how to gamify myths and folklore in relation to the original material.

The delivery focuses on 1-2-1 and group support, in a workshop environment with peer playtesting and playful activities. This environment enables students to rapidly iterate on new ideas for playable games. It gives them time to support the conversion of their concepts into polished games through design and development, starting with a playable prototype. This shift in teaching from traditional lectures aims to develop students' independent learning, collaboration through playtesting, and critique and reflection, all of which could be documented for their own and industry reference.

We first ask students to come up with ideas based on local myths and folklore. From the three ideas presented in a template and pitched to the teaching team, two are killed, and one is allowed to proceed to

development. We recommend discussing those ideas upfront with peers so they can challenge and critique them. For students who have stage fright, we do offer private email evaluations.

The next stage is to translate the idea into the provided technical Game Design Document (GDD) template. There are various takes on Game Design Documents (Gonzalez, 2016; Riendeau, 2023) and our skips most of the high-level character/narrative/worldbuilding aspects, as those are provided by the myth/folklore. As we are a Game Design course (and the unit is delivered after students are taught programming), the focus of our GDD is much more technical. It focuses on how game internal systems, such as finite-state machines, are designed and updated in response to player actions.

However, before students submit their own GDDs, they will participate in a role-play activity in which they evaluate and mark three randomly selected GDDs from students who have already graduated from a course (using older criteria) to understand the required level of detail. The goal of this unit/course is to develop student-designed game prototypes. They work from their own design documents, which are pre-approved (or require certain changes) before development starts, and with this additional feedback from tutors, students build playable games.

Methods not taught in class and not approved by the teaching team must be avoided; we ask students to confirm with their tutors if in any doubt. This is done to ensure that students do not just go to the first available online tutorial because they think they need a mechanic X presented by YouTuber Y to improve their game Z. We interrogate the mechanic in the context of the myth/folklore, of the original game vision, and if students have sufficient understanding not just to copy and paste code merely but to implement it to complement their vision.

COURSE TEXTS, GAMES, SOFTWARE, AND HARDWARE

All our primary and secondary reading lists are available through the campus library, in both physical and electronic formats. As the Myth and Folklore projects presented by our students are quite international, we reflect this with a selection of authors and perspectives we cover in the class:

- YouTube deep insights offered via Ars Technica War stories (2020, <https://tinyurl.com/dx69tmsxa>), speakers at GDC Festival of Gaming (GDC, n.d., <https://tinyurl.com/4vehvsud>) and Game Industry Conference (GIC, n.d., <https://tinyurl.com/52rvseac>), indies (Millard, n.d., <https://tinyurl.com/bdhxy9mn>), and industry veterans such as Tim Cain (n.d., <https://tinyurl.com/yrthnxfu>) or Masahiro Sakurai (2026, <https://tinyurl.com/3umyn6jj>)
- Books by industry legends Brenda Brathwaite, Fawzi Mesmar and Jesse Schell
- A range of dedicated playful in-person activities (for tactile learning)
- Independent podcasts such as ‘Freaky Folklore’ (Eeriecast Network, n.d., <https://tinyurl.com/2k896d2n>) and ‘Mythology & Fiction Explained’ (n.d., <https://tinyurl.com/4av6dm85>) for a better understanding and respect of source materials.

The course has a dedicated High-Spec Windows PC classroom. The Unity (Unity Technologies, 2026a) game engine and Visual Studio (Microsoft, 2026) are being used because they offer free personal-use licenses that students can use at home, regardless of whether they have a Windows or Mac computer. Outside of scheduled teaching time, students have access to classes during extended evening hours or in alternative spaces, such as the shared Digital Space (London College of Communication, n.d.); consequently, they do not need a powerful enough computer at home.

Furthermore, as part of the previous unit, we covered game accessibility (from input to design perspectives), in line with the SpecialEffect Dev Kit (SpecialEffect, 2022). The course has dozens of Xbox controllers, several accessible controllers (both Xbox and PlayStation), Nintendo Switch Devkits (require NDAs), Valve’s hardware (Valve Corporation, 2025), and some mobile hardware on offer. Unity (Unity Technologies, 2026a) allows us to export to those and more. For a decade now, anyone can convert their home retail Xbox (One,

Series X/S) into a devkit using the Developer Mode app (Crecente, 2016), and we have teaching materials and expertise to support this.

COURSE ASSIGNMENTS

The unit/course includes both formative (evaluation and feedback-only; ungraded) and summative (graded) assessments. This is an individual submission; students are expected to work independently. Although group work is part of in-class activities, we are asking students to collect feedback from their peers in a formative capacity.

Formative Presentation (Ongoing, Pre-Easter)

We ask students to research myths and folklore related to their

- Heritage such as family bloodline,
- Area they call home (village, city, county, state, country)
- Something that impacted them in a meaningful way (this can include modern-day creepypasta, as it is a contemporary form of folklore that utilises digital platforms to share stories that resonate with shared cultural fears and emotions)

They fill out a template provided that summarises the myth of their choosing, but highlights how the story and narrative are being gamified and turned into a playable game through the usage of Joseph Campbell's 'Hero's Journey' (2008), Maureen Murdock's 'The Heroine's Journey' (1990) and Dan Harmon's 'Story Circle' (2011). We advise students to pitch it in class for tutor and peer feedback, but also offer the option of private tutorials or email guidance for inclusivity reasons.

Industry Angle:

Every year for our graduating cohort, we host a graduate showcase to which we invite industry members. This is in addition to guest talks, studio visits, industry-run events, third-year units, and any other opportunities for insider input. As such, we do our best to ensure that our students have a unique portfolio of work, allowing students to be flexible with the roles they apply for.

As Game Design is a highly competitive field, having works that stand out as unique yet relatable helps cut through the noise. By dealing with works that are in the public domain, we can have conversations about culture, heritage, but also intellectual property rights, as both smaller and bigger companies reach out to those materials for sources of inspiration to varied success, at the time of writing:

- Disney princesses \$45.5b (Wikipedia, 2026)
- Sony's 'God of War' series \$1.4b (Fleider, n.d.)
- Game Science 'Black Myth: Wukong' \$1.4b (Bloomberg News, 2024)
- Backrooms \$380m (The Numbers, 2026)
- Supergiant Games 'Hades' series \$274m (GameRevenueData, n.d.)
- Inscryption \$118m (Steam Revenue Calculator, 2026)

This also, in turn, ensures that no two students will have the same game project (as pitches and Game Design documents can be pivoted into different (sub)genres or focus to allow for differentiation while utilising the same source material. By being interested in niche local variants, we also do our best to avoid stereotype go-to (God of Thunder, throwing a bolt at enemies, etc.).

Consequently, we want our students to demonstrate adaptation literacy, differentiation under

constraints, IP awareness, and legal literacy, while bringing authenticity, specificity, and cultural sensitivity to their work. Who think like junior designers and are part of the bigger picture, and not just hobbyists who do it for fun, without a care in the world.

Game Design Document (Pre-Easter)

Before Easter Break, students must submit a completed version of their Game Design Document. They will be given a GDD template, and the submission will be assessed only after all required sections are completed. Students will receive feedback to improve and speed up the development of their game idea.

This Game Design Document will define the minimum viable product of the students' game and reflect the theoretical design ideas and theories discussed in the unit. To demonstrate how a player will improve their skills and knowledge to overcome this challenge, it will include:

- Storyboards that illustrate in-game events and mechanics like player controls and endgame that demonstrate a single playthrough. (Game Loop)
- High Level Concept and Verbs (Actions)
- Skill-Luck / Physical-Mental Matrix (Type of challenge)
- Finite State Machines (Object behaviours)
- Object-Oriented Models (Game data)
- Entity Relationship Diagram (How objects interact)
- Expansions of the basic prototype (project's scalability)

While working on technical GDD, students must consider the player experience.

- A clear victory and defeat condition.
 - A first-time player should be able to complete the basic game within a minute (no endless gameplay)
 - The game system will present the player with multiple-layered challenges and must have replay value.
 - The core gameplay loop should expand from a single mechanic (verb).
 - For instance, to trigger buttons, avoid obstacles, and defeat enemies, the core mechanic (verb) could be jumping, shooting, or clicking.
 - The game can be expanded by additional mechanics that follow the same pattern.
- While working on the document, the student must also consider some technical constraints.
 - The game will be a 2D title presented in a 16:9 ratio.
 - Player control: Mouse and/or Keyboard input.
 - The system will have a perceived static playing area (no scrolling, multiple levels are allowed)
- Player objects must remain within that area.
- Other objects can enter and leave this playing area.

If accepted, students' GDDs will serve as the minimum pass requirements for the playable prototype. If it fails, a GDD from a teacher's collection can be provided and required to be developed into a playable game, or, while working on resubmission, the student is expected to start implementing the feedback into their prototype.

Consequently, students also have to consider potential areas for improvement, expanding on the game's basic mechanics to earn a higher grade. These will be documented at the end of the GDD with enough detail for implementation and expansion based on the basis version presented in the GDD.

This technical GDD must provide the rules of the game in enough detail and clarity for development by

any of the students' peers and teaching team members, and be restricted to the use of the tools and techniques as taught in year 1.

Playable Game (Post-Easter and continuous)

Working with the restriction template supplied by student tutors and using the technical Game Design Documents (GDD) submitted (or provided by the teaching team), students will build a playable game. They must:

- Follow the Game Design Documents as closely as possible.
- Take the tutor's feedback into account.
- Attempt to undertake any pre-planned expansions.
- Iterate on the game based on the feedback received and discussed via the provided Q&A template. A sample size consisting of all classmates is encouraged.
- Evaluate the feedback and implement any necessary changes.
- Continue this iterative process, including expansions to the basic gameplay.

Iteration Report (End of Term)

The student is to write a one-page (450 words) on how they have applied player input and feedback to their game's final design/build. Provide pre- and post-change screenshots of their game, along with access to the feedback results being discussed.

ARTIFICIAL INTELLIGENCE IN THE COURSE

University of the Arts London has an AI and Assessment policy (UAL, 2026b), developed by staff and students, which operates on a traffic-light system depending on the nature of the assessment.

It outright prohibits the (red) use of AI tools in areas that require students' reflection (crits, discussions) or skills assessment (written, studio, and practical work). However, it is context specific (orange) with students permitted to disclose how they used the tools, to what extent, and use it as support to draft and structure content (authored by students), be a dialogue partner for debate and ideation purposes or supporting a particular process (such as code debugging or translation). Permitted areas (green) are those where AI will explicitly form part of the assignment task and learning outcomes, including developing code, analysing or comparing content, researching, and seeking answers (in line with traditional search engines).

As AI features are now built into Microsoft products, Co-Pilot in Windows (Microsoft, 2023) and GitHub (GitHub Inc., 2026), Visual Studio with IntelliCode (Microsoft, 2026), as well as in Unity: AI Assistant and Generators (Unity Technologies, 2026b), and Sentis (Unity Technologies, 2024), they are being leveraged as helpers for student learning rather than replacements. Online tutorials are easy to follow and engage with. Consequently, we teach our students to use them as advisors, but with the final decision and direction being made by humans.

However, even with that assistance, any solutions obtained through AI tools must be disclosed and adapted to the style and scope of students' projects and to specific coding limitations. The introduction of said limitations was intended to help streamline and scaffold programming learning for non-technical students. However, these days it also trips up AI models, as it requires thinking outside the box and using more tangible concepts.

As our students are digital natives, they grew up with the assumption that the best answers are presented on the first page of Google results. Already more than 1 in 10 of Gen Z are starting with either Circle or Google Lens to search for a very specific answer (Taylor, 2025). This creates an issue, as human-like, structured answers from AI tools (which are now part of search engines) are taken at face value and not interro-

gated or critiqued for their accuracy or the specific source used to generate them. As such, ensuring that students engage meaningfully with those new technologies, use them as a critical friend, rather than offloading their thinking, is a current point of discussion.

COURSE ASSESSMENT

The goal of the Year 1 units is to help students adjust to the British HE system. "Game Concept to Playable Prototype" is assessed with a 15-point letter grade (from F- to A+), with 40% being D- and 70% being A-. The grade is holistic (all parts must be submitted and completed to a satisfactory level) before a single grade for the entire submission is awarded. A major part of the submission is the digitalisation of students' unique games.

Presentation is formative. Students receive feedback on the strengths and weaknesses of each of their ideas, and on what is hard or easy to develop (can the idea be simplified if personal circumstances change, or can the game be expanded to create a more polished, individualised portfolio piece).

The technical Game Design Document (Part 1) accounts for 25% of the overall grade and primarily focuses on Knowledge, with less emphasis on Process Outcomes.

The playable game itself (part 2) will account for 60% of the overall grade, with the focus primarily on Knowledge of how to realise the initial vision. Half of this part can be achieved simply by developing minimum promises in the technical Game Design Document; the remaining half of the grade can be earned by expanding the project based on the feedback and guidance received.

The iteration report (part 3) will account for 15% of the overall grade, discuss how the playtesting process impacted game realisation and expanded developers' Knowledge, and be fully Process-focused.

EXPANDED COURSE OUTLINE

The content that students engage with every week is bespoke and created by the teaching team, consisting of dedicated presentations, handouts, and analogue exercises. This unit/course has two 4h classes per week (Wednesday half-class to enable offline activities) and a Friday whole-class session to work together on computers. See Table 1 for the full outline of each week. The nature of classes changes depending on the stage of the process:

- Friday
 - Presentation (0-2h)
 - Student research/independent work/pitching (2-4h)
 - Live coding (0-4h)
- Wednesday
 - Presentation (0-1h)
 - Non-digital group activities related to presentation materials (0-2h)
 - Student research/independent work/pitching (2-4h)
 - Presentation and evaluation of understanding (0-0.5h)
 - Live coding (0-4h)
- Focus shifts alongside weeks
 - Weeks up to 5 focus on getting the myth/folklore idea approved, and GDD out of the way
 - Weeks up to 10 focus on getting the basic prototype up and running to collect feedback and fix bugs
 - Last 4 weeks focus on cutting all loose ties, if able, iterating on feedback and bug fixing

We give students presentation templates before the unit starts so that we can utilise reading week for research. During Easter Break, 5 weeks in, broken down into Block 2, we have a clear distinction between the

conceptual, high-level initial 5 weeks and the remainder of the period, which is focused on game development and iterations.

Week	Topic	Class Topics/Activities	Assignments
-3	<i>This is the submission week of 'Programming and Technical Design for Games'</i>	Students are informed about an upcoming presentation on myth and folklore and are given templates to use for research during the break.	'Programming and Technical Design for Games' Submission
-2	Reading Week	Students are expected to catch up on reading materials and prepare for upcoming units.	Students can upload their Pitch presentations.
-1	Student Union Activity Week	Students have the opportunity to engage with student union clubs and societies.	
1	Introduction / The Book Day	Narrative vehicles (Hero's Journey, etc.). Playful challenge – students look for the most obscure myths from the selection of provided books, and the teacher's role is to quickly fill out the template with the game idea, discussing how the story can be gamified.	Students are given a GDD template in week 1 Students can upload their Pitch presentations. Any uploaded materials are presented and critiqued in class as soon as they are submitted, and the student is present.
2	Game-Based Learning	Traditional play and breakdown of various myth and folklore-inspired tabletop games and digital worlds, to understand what exists.	
3	Emergent Gameplay	Why can limitations and constraints result in better games? How to generate depth with simple mechanics?	

Week	Topic	Class Topics/Activities	Assignments
4	Role Playing	Students are given anonymised past submissions (used as examples) and a marking spreadsheet to take on the role of an assessing teacher, to understand what is being graded, how, and why.	
5	Business Simulation	Myth and Folklore, IP, Branding Supporting anyone who has not submitted their GDD yet, to help them get over the deadline	(Summative) Game Design Document submission.
Easter Break – 3 weeks			
6	Feedback and iteration	Sample Size and essential statistics. Why does asking the right questions matter more than getting the answers you want?	(Formative) Share the GDD Game via forums and start collecting feedback. If any current Final Year Bachelor's, MA, or PhD work aligns with UAL Climate, Racial, and Social Justice principles and requires testers, we try to accommodate it in our sessions. This helps students' perception of what more can be done with their work, gain informal insights into higher degrees, and allows them to ask more senior students to provide feedback on their own work (some of whom would compare it to their work at the same stage, and be impressed with the quality progress since).
7	What is missing?	Co-creation of teaching materials: based on all collected (and assessed) GDDs and their mechanics, we review what is available in our material database (and where) and, if anything is missing, create it live in class.	
8-13	Live-Coding and Technical support.	Developing missing materials and supporting individual game projects.	
14	Final push	Supporting anyone who has not submitted their game	(Summative) Playable Game Submission, with Iteration Document.

Week	Topic	Class Topics/Activities	Assignments
		yet, to help them get over the deadline	

Table 1 Expanded Course Outline

COURSE BEST PRACTICES

In contemporary game development education, one of the most pressing challenges is helping students produce work that is both culturally grounded and creatively distinctive. The current media landscape, characterised by algorithm-driven sameness, globalised pop-culture homogenisation, and an industry increasingly reliant on sequels, remakes, and established franchises, creates a narrow creative bandwidth for emerging designers. Within this context, the deliberate use of Myth and Folklore as foundational design material becomes a powerful pedagogical strategy. It enables students to reconnect with cultural roots, diversify their creative output, and meaningfully engage with narratives that are often underrepresented or marginalised in mainstream game development.

Working with mythological and folkloric sources also provides students with a pathway to understand how games can serve as vehicles for cultural empowerment. When students draw on stories embedded in their own heritage or lesser-known regional traditions, they contribute to a broader cultural ecology in which diverse voices and histories can be experienced interactively. This approach not only enriches their portfolios but also positions them as designers who can contribute to more inclusive and culturally literate industry practices.

A further advantage of using public-domain source material is the opportunity it provides to teach students about Intellectual Property rights, Trademarks, and related legal frameworks. While the original myths and folktales are free to use, many contemporary adaptations are protected by copyright. This distinction becomes a practical teaching tool: students learn that creative freedom exists within legal boundaries, and that professional game development requires awareness of ownership, licensing, and commercial risk. For students aspiring to work independently, this understanding is essential. It reinforces the idea that self-employment in the creative industries demands business-minded thinking rather than hobbyist attitudes.

To support this blend of creative freedom and professional discipline, the module combines open-ended ideation with structured production processes. Students are encouraged to explore any genre, mechanic, or aesthetic direction within the constraints of 2D development and mythological source material. This ensures a wide range of outcomes while maintaining a shared foundation that enables equitable assessment. The structured components, pitch presentations, technical Game Design Documents (GDDs), iterative prototypes, and reflection reports provide a consistent framework for evaluating highly individual projects against common criteria.

The instructional sequence mirrors the stages of a professional game development pipeline. Although bounded by the requirement to draw from Myth and Folklore, the initial ideation phase remains intentionally broad. Students can reinterpret their chosen material through any genre or mechanical lens, encouraging experimentation and originality. This freedom helps them discover personal motivations and cultural connections that enrich their design work.

The pitching activity introduces students to the reality that ideas alone hold limited value. In industry, the strength of a concept lies not in its novelty but in the clarity of its purpose and the designer's ability to articulate why it matters. Through discussion and feedback, students learn to identify the deeper motiva-

tions behind their projects, whether cultural, mechanical, thematic, or experiential, and to select ideas they are genuinely committed to developing.

The Technical Game Design Documentation stage shifts focus from conceptual enthusiasm to practical implementation. Students must translate their ideas into systems, rules, states, and constraints. This process often reveals hidden assumptions or structural weaknesses, teaching students that design requires discipline, foresight, and problem-solving. The emphasis on technical documentation rather than narrative or business planning ensures that students engage directly with the mechanics and feasibility of their prototypes.

Students begin development at different points in the process, reflecting diverse working styles. Some start building immediately, others create quick prototypes to test ideas before writing their GDD, and some wait for feedback before committing to implementation. Regardless of approach, early development typically leads to more iteration, and iteration leads to higher-quality outcomes. This mirrors industry practice, where rapid prototyping and continuous refinement are essential, and execution matters more than the idea itself.

The final reflective component teaches students that feedback is not a monolithic entity. Effective designers must learn to distinguish between useful critique and irrelevant opinion, and to ask questions that elicit actionable insights. The iteration report encourages students to analyse their decision-making, evaluate the impact of feedback, and articulate how their project evolved. This fosters metacognitive awareness and prepares them for collaborative professional environments.

Taken together, these strategies create a learning environment in which students can produce culturally meaningful, legally informed, and technically robust game prototypes. The combination of creative autonomy and structured process not only supports equitable assessment but also mirrors the realities of contemporary game development. Students emerge with portfolios that stand out in a crowded field, grounded in heritage yet shaped by professional practice, and capable of contributing to a more diverse and culturally responsive industry.

FUTURE COURSE PLANS

'From Game Concept to Playable Prototype' is a brand-new unit that emerged from merging two halves of other units. This was done in response to student and industry feedback that called for clearer unit names that reflect what is directly taught within them, rather than historical names such as 'Concept and Design' (GDD) and 'Prototype Development 1' (Game and Iterative report). As the previous names were quite generic, it was necessary to reshuffle the teaching materials and provide greater clarity in their content for industry integration, as well as in promotional materials.

Ideally, I want students to gain enough confidence and inspiration to publish their best work on PC Itch.io (n.d.) and Steam (Valve Corporation, n.d.) and consoles (Nintendo Switch, Xbox), as some of it is at that level. This aligns with the University of the Arts' ethos of auteurs and with our being the no. 1 UK higher education institution for producing start-ups (UAL, 2026a). There is potential for closer collaboration with the University and wider national acceleration schemes. We have already had success, with our year 3 (level 6) and year 2 (level 2) students being hired by industry while still studying, or starting their own business venture and obtaining initial development capital (over £100,000 to date). It would be great to see this also happening at the very top of the first year as a foundation for future growth and inspiration.

As the industry constantly shifts and pivots, having the skills to be a solo/freelance developer by the end of the first year is a powerful confidence boost, especially for those who have never made games before. This is why this unit focuses on the whole pipeline from idea generation, pitching and design documentation (which are most often associated with Game Designers) to development, iteration and feedback collection (which is the reality of any indie developer attending any showcase) that are much less glamorous but quite often even more impactful.

Exploring how AI tools that are becoming part of our go-to tools can help students speed up prototyping

and development while still enabling them to deliver on their vision will also be an interesting pursuit in the near future.

It would also be nice to reflect on this merger and see what has and has not worked, and why. As we permit modern (copyright-free) internet folklore to be part of the assessment, it may be interesting to see how AI will be viewed in the future as part of the heritage of the 2020s.

Teaching materials on this course are being actively redesigned as part of RE:PLAY, a “three-year ESRC-funded project that aims to explore how playful approaches to teaching and learning are currently being used in UK higher education and evidence what works, and why” (Northumbria University, 2026).

AI STATEMENT

As I am dyslexic and taught British English as a second language, I used Grammarly to ensure compatibility with APA 7 and grammar.

REFERENCES

- Ars Technica. (2020). *War Stories* [YouTube playlist]. YouTube. Retrieved July 19, 2026, from <https://www.youtube.com/playlist?list=PLKBPwuu3eCYkScmqpD9xE7UZsszweVOon>
- Baillie de Byl, P. (2012). *Holistic game development with Unity: An all-in-one guide to implementing game mechanics, art, design, and programming*. Focal Press.
- Bloomberg News. (2024, September 4). *Investor who risked it all on ‘Wukong’ scores another sales win*. Bloomberg. <https://www.bloomberg.com/news/articles/2024-09-05/investor-who-risked-it-all-on-wukong-scores-another-sales-win>
- Brathwaite, B., & Schreiber, I. (2017). *Challenges for game designers: Non-digital exercises for video game designers*. Lighting Source UK.
- Cain, T. (n.d.). *Cain on Games* [YouTube channel]. YouTube. Retrieved July 19, 2026, from <https://www.youtube.com/@CainOnGames>
- Campbell, J. (2008). *The hero with a thousand faces* (3rd ed.). New World Library.
- Chen, M. (2026, June 4). *How to kill your darlings in game design*. Bugnet Blog. <https://bugnet.io/blog/how-to-kill-your-darlings-in-game-design>
- Crawford, C. (2003). *On game design*. New Riders.
- Crecente, B. (2016, March 30). *Starting today, anyone can turn their Xbox One into a dev kit for free*. Polygon. <https://www.polygon.com/2016/3/30/11318568/xbox-one-dev-kit>
- Dhule, M. (2022). *Exploring game mechanics: Principles and techniques to make fun, engaging games*. (Original publisher unknown). ProQuest Ebook Central. <https://about.proquest.com/en/products-services/ebooks-main/>
- Eeriecast Network. (n.d.). *Freaky Folklore* [Podcast]. Eeriecast. Retrieved July 19, 2026, from <https://eeriecast.com/freaky-folklore>
- Fleider, R. (n.d.). *About* [LinkedIn page]. LinkedIn. Retrieved July 19, 2026, from <https://www.linkedin.com/in/richfleider/>
- Game Developer. (2026). *Game Developer* [Homepage]. Informa. Retrieved July 19, 2026, from <https://www.gamedeveloper.com>
- GDC. (n.d.). *GDC Festival of Gaming* [YouTube channel]. YouTube. Retrieved July 19, 2026, from <https://www.youtube.com/@GDCFestivalofGaming>
- Gibson, J. (2015). *Introduction to game design, prototyping, and development: From concept to playable game — with Unity and C#*. Addison Wesley.
- GIC.GD. (n.d.). *Game Industry Conference* [YouTube channel]. YouTube. Retrieved July 19, 2026, from <https://www.youtube.com/@RPGPP>

- GitHub, Inc. (2026). *Change is constant. GitHub keeps you ahead* [Webpage]. Retrieved July 19, 2026, from <https://github.com>
- Grow, B. (2025). *Good/Bad Game Design* [YouTube playlist]. YouTube. Retrieved July 19, 2026, from https://www.youtube.com/playlist?list=PLrSZDOvRCmRBLuY5_DPZoxqdMonjbNjZ
- Gonzalez, L. (2016). *How to write a game design document*. *Game Developer*. <https://www.gamedeveloper.com/business/how-to-write-a-game-design-document>
- Harmon, D. (2011). *Story structure 101: Super basic* [Wiki article]. Channel 101 Wiki. Retrieved July 19, 2026, from https://channel101.fandom.com/wiki/Story_Structure_101:_Super_Basic
- Itch.io. (n.d.). *Download the latest indie games* [Homepage]. Retrieved July 19, 2026, from <https://itch.io>
- London College of Communication. (n.d.). *The Digital Space*. University of the Arts London. Retrieved July 7, 2026, from <https://www.arts.ac.uk/colleges/london-college-of-communication/student-life-at-lcc/facilities/the-digital-space>
- Macklin, C., & Sharp, J. (2016). *Games, design and play: A detailed approach to iterative game design*. Addison Wesley.
- Mesmar, F. (2025). *Demystifying creativity: On originality in game development*. CRC Press.
- Microsoft. (2023). *Copilot in Windows (Version 11)* [Computer software]. <https://microsoft.com>
- Microsoft. (2026). *Visual Studio with IntelliCode (Version 2026)* [Computer software]. <https://visualstudio.microsoft.com/>
- Millard, A. (n.d.). *The Architect of Games* [YouTube channel]. YouTube. Retrieved July 19, 2026, from <https://www.youtube.com/user/Thefearalcarrot>
- Murdock, M. (1990). *The heroine's journey: Woman's quest for wholeness*. Shambhala Publications.
- Mythology & Fiction Explained. (n.d.). *Mythology & Fiction Explained* [Podcast]. Retrieved July 19, 2026, from <https://mythologyandfictionexplained.com>
- Northumbria University. (2026). *RE:PLAY: Researching the effectiveness of playful learning in higher education* [Project page]. <https://research.northumbria.ac.uk/replay/>
- Riendeau, D. (2023). *How to write a modern game design document*. *Game Developer*. <https://www.gamedeveloper.com/design/how-to-write-a-game-design-document>
- Sakurai, M. (2025). *Masahiro Sakurai on Creating Games* [YouTube channel]. YouTube. Retrieved July 19, 2026, from https://www.youtube.com/@sora_sakurai_en
- Schell, J. (2019). *The art of game design: A book of lenses* (3rd ed.). CRC Press.
- Slack, J. (2017). *The board game designer's guide*. Amazon.
- SpecialEffect. (2022). *SpecialEffect DevKit* [Toolkit]. <https://specialeffectdevkit.info/>
- Steam Revenue Calculator. (2026, July 19). *Inscription* [Web application]. Retrieved July 19, 2026, from <https://steam-revenue-calculator.com/app/1092790/inscription>
- Taylor, D. (2025, July 23). *Google Search Central APAC 2025: Everything from day 1*. *Search Engine Journal*. <https://www.searchenginejournal.com/google-search-central-apac-2025-everything-day-one/551634/>
- The Numbers. (2026). *Backrooms (2026) – Box office and financial information* [Database entry]. Nash Information Services. [https://www.the-numbers.com/movie/Backrooms-\(2026\)](https://www.the-numbers.com/movie/Backrooms-(2026))
- Unity Technologies. (2024). *Unity Sentis* [Computer software]. <https://docs.unity.com/en-us/ai>
- Unity Technologies. (2026a). *Unity* [Computer software]. <https://unity.com/>
- Unity Technologies. (2026b). *Unity AI assistant and generators (Version 2.8)* [Computer software]. <https://docs.unity3d.com/Packages/com.unity.ai.assistant@2.8/manual/index.html>
- University of the Arts London (UAL). (2022). *What and how we teach*. <https://www.arts.ac.uk/about-ual/client-action-plan/what-and-how-we-teach>
- University of the Arts London (UAL). (2026a). *Industry and partners*. <https://www.arts.ac.uk/students/student-careers/industry-and-partners>
- University of the Arts London (UAL). (2026b). *AI and assessment*. <https://www.arts.ac.uk/about-ual/learning-and-teaching/digital-learning/ai-and-education/ai-and-assessment>

Valve Corporation. (2025, November 12). *Steam hardware*. <https://store.steampowered.com/hardware/>

Valve Corporation. (n.d.). *Welcome to Steam* [Homepage]. Retrieved July 19, 2026, from <https://store.steampowered.com/>

Wikipedia. (2026, July 10). *List of highest-grossing media franchises*. Retrieved July 19, 2026, from https://en.wikipedia.org/wiki/List_of_highest-grossing_media_franchises