Queen Katharine Academy

BTEC L3

DIGITAL GAMES DEVELOPMENT

TRANSITION PACK

INTRODUCTION

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COURSE INFORMATION

This is a two year course made up of various internally assessed units of work and one controlled conditions externally assessed unit.

Video game Design

Explore the intricacies of designing a gameplay experience for your target audience. From level design to UI and scaling challenge with items, hazards and enemies. This unit requires you to analyse the construction of existing products and generate a detailed game design document for your own. Using the engine, you script in the second unit you will then produce a working prototype of this game.

Game engine scripting

This unit requires you to demonstrate understanding of general scripting practices and concepts, from basic variables and “if - else” statements to the fundamental structures behind game AI and physics engines. Using your design document for your game design you will plan and script a game engine on which your design will run.

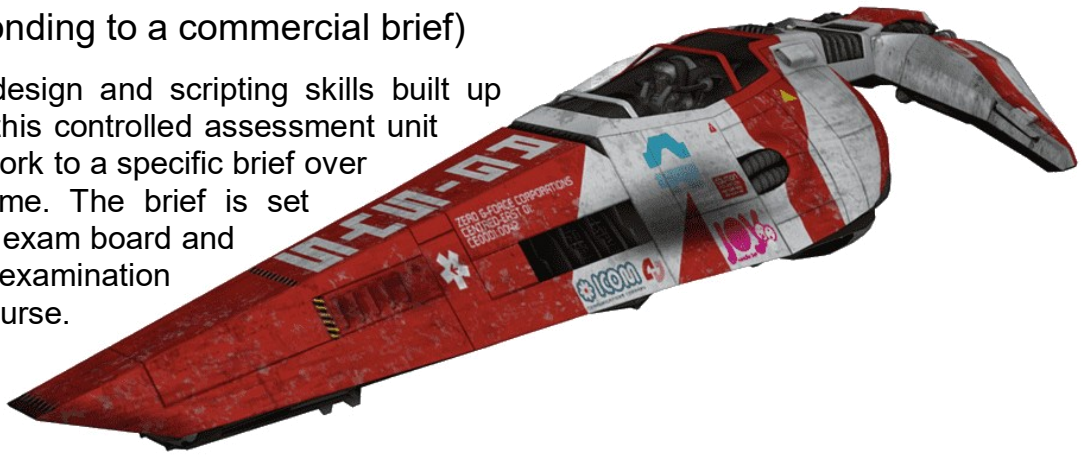
3D modelling for games

The final unit studied; this allows you to develop the basic knowledge required to unlock the next step of your game design journey. You will plan, build and export 3D models into a 3D capable game engine, assign collisions and movement and demonstrate your models working in a simple 3D environment.

Media Skills

(responding to a commercial brief)

Using the design and scripting skills built up over the course this controlled assessment unit requires you to work to a specific brief over a short time frame. The brief is set each year by the exam board and constitutes the examination element of the course.



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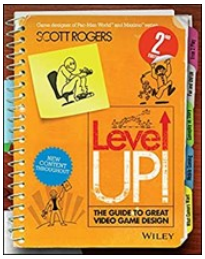
READING LIST

Reading around your subject makes a huge difference in your depth of appreciation for a topic. There is only so much time in lessons after all! There are a lot of excellent books on the subject of game design. Here is a list of some which I can happily recommend. Most of these can be found pretty cheap second hand on popular market places.

Level Up!
The Guide to Great Video Game Design

This is an excellent book.
You should read it.

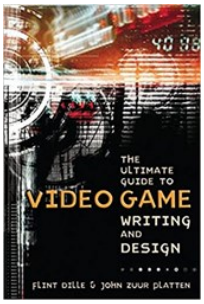


Slay the Dragon:
Writing Great Video Games

A really good read on Narrative Design, and not too long.

The Ultimate Guide to Video Game Writing and Design

Easy to pick up with some good ideas on design and writing



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WATCH LIST

While there are hundreds of videos online about all manner of aspects of games and game design, not all are of equal quality. However there are certain platforms and channels which are more reliable. The GDC (Game design conference) is an annual developers conference and costs attendees between $250 -$1000 depended on which talks they want to see! Fortunately many of these talks make their way to the GDC YouTube channel and are a superb (if rather high level) insight into game design and production. I have provided a selection of suggested viewing below, including a few “softer” but good quality breakdowns from other channels.

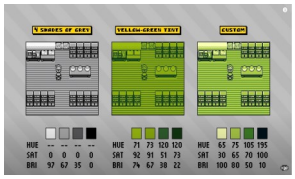
Level Design Workshop: Designing Celeste
https://youtu.be/4RlpMhBKNr0

Teaching game mechanics well
https://youtu.be/ZIs5189lmRA

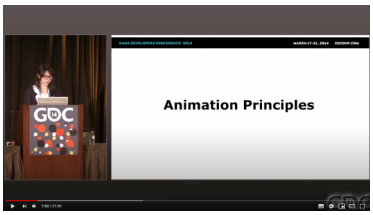
Mechanics and Character Design
https://youtu.be/Vopm0YjjQcE

This is a Talk About Tutorials
https://youtu.be/VM1pV_6IE34

pixel art of Pokémon
https://www.youtube.com/watch?v=gwF0L55kIgg



Animation Principles
https://youtu.be/Mw0h9WmBlsw

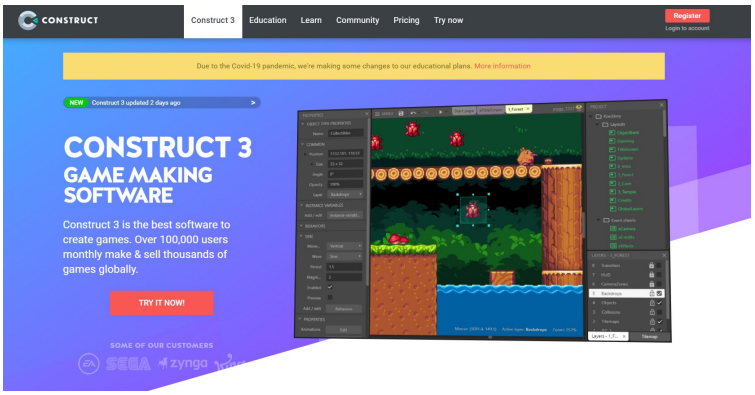


SOFTWARE TOOLS

We will use a range of software during the course. We live in an amazing time for game development with all manner of free software and game engines available to use. Below are the packages I fully recommend you get access to if at all possible and start to familiarise yourself with.

https://www.construct.net/en

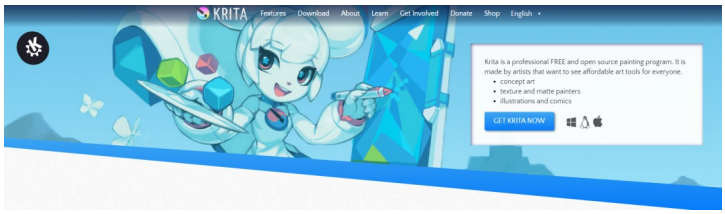
Construct 3



This is the main tool you will be using to create your games. It is browser based and free to get started. You will need to create an account which will then allow me to assign you a license to the full version.

https://krita.org/en

Krita



This is a free art and animation suite and a superb alternative to Photoshop. We use it in school for this course as it is completely free to use at home. I even prefer this to Photoshop now for art and animation purposes.

There are others as well, but these two make up the bulk of our workflow and are worth getting a head start on if you can.

LEVEL ONE

GAME ANALYSIS TASK

Using some of the videos from the watch list (in particular the first two) take a critical look at he first stage/ level/ mission/ 10 minutes of a game of your choice. Try to assess *how* the game designers have crafted the player experience to draw them into the game and help them understand how the game works. Players who can't work out how to play will often quickly get frustrated and stop playing so these early moments are incredibly important. You should always be asking yourself *why* have they put this here? *How* does this game teach me how to play, and then test my understanding?

How does the game teach the player the rules and systems of the game?

How does the game test the player's understanding of its mechanics and systems?

This will be very helpful:
https://notlaura.com/a-template-for-analyzing-game-design/

This blog, contains an excellent jumping in point which provides lots of core considerations for understanding and breaking down the design of a game. As the writer here reminds you, this is not a review, not what you think about the game, but a technical breakdown and analysis of its construction.

It can be helpful to use screen shots or images to help illustrate your points (it is quicker to show than to describe, this means you can spend more time using your words to explain!)

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LEVEL TWO

TRADITIONAL GAME DESIGN TASK

There is no better way to think about game design as a beginner than to look to humanity's long history of game making. While "video games" may be the current primary medium, people have been designing and playing games pretty much throughout human history—it is part of who we are!

We have evidence of boardgames being highly popular over 5000 years ago, with many examples being discovered in ancient Egyptian tombs dating back to around 3300 BC. Several different games have been uncovered but the one believed to be the oldest is a game called Senet. On the surface this is a straight forward game. You roll the "dice" (they didn't have dice but used other thrown objects such as sticks, bones or rocks) to create a random number and move your game piece across the board. The aim being to be the first one to reach the other side.

A Senet Board and game pieces found in the tomb of Tutankhamun

A simple, but recognisable game design even 5000 years later. However, just as with today's board games (and video games) these mechanics alone don't make the game. People love story and all games are designed around a theme, idea or narrative. We can simplify this idea into three core types: Thematic, Narrative driven, and Emergent.

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GAMEPLAY NARRATIVE TYPES

Thematic:

A game based around a concept or idea but without a step by step story. Senet fits this type, the game is linked to Egyptian religious beliefs. The pieces represented human souls and their movement was based on the journey of the soul in the afterlife. Each square had a distinct religious significance, with the final square being associated with the union of the soul with the sun god. In video games, this narrative type often applies to simple puzzle games. There is rarely a firm "story" to these types of games but they are based on a theme (candy, bubbles something loose like that). Other games like Chess would also fit this label. There is no particular story to a game of chess, just the theme of war.

Narrative driven:

As with many big AAA video games the game experience is based around completing a pre written and well defined story. Progress through the game allows us to uncover more of the story. Board games in this category are fairly rare, but it is common in modern video games with titles from Assassins' Creed, to The Legend of Zelda all offering a fixed story to play through.

Emergent:

Many board games fit this type. Here the theme and story elements allow for the player to create their own narrative within the "world" of the game. Monopoly, for example features emergent play, where there is a clear theme "getting richer than everyone else" and lots of narrative cards (going to jail, winning a contest, paying taxes!). However the narrative is not set, and each time you play each player "character" will develop their own unique narrative story depending on chance; which squares they choose to buy, which cards they turn over etc. This concept is also "at play" in lots of video games. Any RPG which allows customisation, any time you find "your way" of battling through a room of enemies. All those unique interactions between people and AI which are never quite the same twice, all of those memorable moments in multiplayer (I still remember gameplay "stories" from 15 years ago created through multiplayer LAN parties and co-operative gameplay!) It's about the story of the moment, it can never be truly repeated.

Of course we often use combinations of these ideas too. Most narrative driven AAA games will still have emergent elements (Although Assassins' creed follows a fixed story, *how* you progress through the missions is more flexible, and which side missions you take is entirely up to you). Sometimes there are even different versions of the ending depending on how you choose to play (think Undertale or Fable for example)

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FINAL TASK

Using the ideas presented on the previous pages. I would like you to come up with a design for a boardgame.

Mechanically, it will follow the pattern of “role the dice, move your counter” type play. You need to decide on the win/ loose conditions.

As you move around the board, different spaces will instigate other aspects of play, such as; collect a card, miss a go, role again etc. You will need to decide how you want to implement these types of systems.

Narrative: WHY am I playing? What am I trying to achieve? What does my in game “character” want? Am I competing with the other players to get it or do we work together? How do I win? Although nothing to do with the mechanics of gameplay, as we have seen these are the questions that make a game unique AND that give us a reason to play. Stories are what drive us as people and they are central to our play as well.

You will need:

1. A basic board design (There are lots of templates available online if you need a starting point—google is your friend) this does not need to be fancy but should suggest the concept of the board layout at least.
2. The concept for the story/ narrative idea and how this is depicted in game
3. A set of rules
4. List of ideas for cards. Objects etc required in the game.

I do not need you to create all of the pieces, cards etc. This is a design task rather than a production task. However, if you want to, I certainly won’t stop you.

We will be discussing these designs at the start of the course and any playable versions will certainly be put into practice! But again—that’s not a requirement (it’s an entirely optional side quest!)

A technique to help if you struggle for ideas is take a videogame or film etc. you enjoy as an example and ask yourself; how could this concept be boiled down into boardgame form? You’d be surprised how, with a little creative thinking, most concepts can be reimagined In both directions. And a strong concept for a game can be played in many different ways!

Good luck!