

Game Development

Getting Ready for BTECs

BTEC Gaming is a vocational qualification, so the emphasis is on being able to do something following a recognised process to perform that task. As a result, much of the course will require you to think about processes and practice these with the various pieces of software. In this Transition Guide you'll find some information about the structure of the course and equipment you may want to get hold of.

Course Structure.

This BTEC course involves you studying 5 modules. 4 of them are coursework based and will be marked by your teacher. The other is a 25 hour controlled assessment with 20 of those hours completed under exam conditions.

We offer 5 coursework options, you will need to choose 4. The first unit (Game Engine Scripting) and the last unit (Game Development) are compulsory. So, in practice, you get to choose two of the remaining three. The units, a brief description and their relative weighting is provided below.

All units (apart from the controlled assessment) take a similar structure.

Learning Aim A: Investigate the topic.

Learning Aim B: Design a product.

Learning Aim C: Develop a product.

Name: Game Engine Scripting	When: September Yr 12	Weighting: 1/6 of the course
In this unit you will be asked to look into the main programming elements that game developers need to know about and how they might be used in the production of a game. You will then design and make new game that will require you to demonstrate the skills you have discussed.		
Name: Game Testing*	When: January or Easter Yr 12	Weighting: 1/6 of the course
The game testing unit will have you investigating testing of games. You will then need to develop your own bug tracking system before looking at your peer's games, using each other's bug tracking systems to report and track the progress of the bugs as they are fixed and tested.		
Name: Concept Art*	When January or Easter Yr12	Weighting: 1/6 of the course
You will be given a brief for a game and asked to investigate, design and create some artwork for that game. This is a unit best suited to those who are more artistic as you will, in part, be judged on the quality of your electronic art.		
Name: 2D Animation*	When: January or Easter Yr 12	Weighting: 1/6 of the course
You will investigate the techniques used when making animations. A brief will be presented for an animation and you will be expected to design and produce an animation of around 60 seconds to meet the brief.		
Name: Game Development	When: September Yr 13	Weighting: 1/6 of the course
Now we start to bring it all together. You will investigate games to determine what players expect from the various genres available. Then you will design and make a game. This unit's focus is all about game play and the quality of the game you produce.		
Name: Controlled Assessment	When: April/May Yr 13	Weighting: 1/3 of the course
The final piece of work you do for this course is the controlled assessment. You will be given a brief by the exam board and then allowed 5 hours to gather or make resources. Under exam conditions you will be given a further 20 hours to produce the game.		

*Pick two of these three units

Everything you do on this course counts towards your final grade – right from the very first day in September of Year 12. You need to meet deadlines and act effectively and quickly on feedback. Failing to keep up will have a significant impact on your overall grade.

Equipment

Hardware

While not essential, many pupils choose to use their own laptops for this course. You are also welcome to use your computer for producing the written assignments if you wish.

There is no expectation that you will supply your own laptop, we will provide exercise books and/or paper if you prefer to work this way. All the computers in the school have access to Godot, image and sound editing software as well as the basic productivity software for producing reports.

We encourage you to use the game engine called Godot, so check what the minimum hardware requirements are for the latest version if you're thinking of buying a new computer. We have had pupils using Windows, Linux and OSX based machines over the years and all have been equally successful. However, you will need some basic software.

Software

Godot

We use Godot in school for game development. This is a free download from godotengine.org website for Windows, Linux and OSX machines. The software is also available through Steam if you have that installed on your computer. While we don't expect you to be an expert in the use of Godot, it's worth doing a couple of online tutorials to help you get used to the interface and the terminology.

Report Writing Software

There are lots of free word processors available for you to use. Spend some time investigating the tool that you like most and getting to know how it works.

If you have a Windows computer you can install Microsoft Office under the school's licence. You will need to logon to RM Unify – rmunify.com – using your school email and the same password you use to logon to the computers at school (pupils joining the school in Year 12 will need to wait until after 1st September for this to be activated). Once you've installed Office it will ask you to configure the licence – again, logon with your school email address and password.

Reports can just as effectively be written in school on the computers available in lessons and in Private Study.

Knowledge

There are no entry requirements for this course, but if you're interested in game development then it would be a good idea to have a general idea of the different types of games available. If you can look at how the games were made – what software was used, how big are the teams, how long did they take to make? etc... You will have a much better idea of what you will be able to achieve while you are following this course.

It's a very good idea to use Godot and try to get familiar with how it works. You can also use Construct for the later game units. If you can already use another game engine, such as Unity or Unreal, you can use those for your coursework, on your own computer. But these are not installed on the school computers by default. You will *NOT* be able to use these for the controlled assessment.

Above all

BE CURIOUS

If you're serious about taking your Game Development studies to A' Level you need to be actively curious about it. Just turning up to lessons might get you a mediocre grade, being interested and exploring beyond the curriculum will be the difference that gets you a top grade. Being willing to put in significant numbers of extra hours outside of the lessons will be the key differentiator.

We want you to challenge us in lessons. Ask us to justify the statements we're making and push us until you understand.

Reading

Here are some books that you might find interesting...

Ready Player One – Ernest Cline

1984 – George Orwell