

# 94%

OF OUR COMPUTER GAMES  
DEVELOPMENT GRADUATES ARE  
IN WORK/FURTHER STUDY 6  
MONTHS AFTER GRADUATING

HESA Performance  
Indicator 2016/17

UNIVERSITY OF THE  
WEST of SCOTLAND

# UWS

School of  
Computing,  
Engineering &  
Physical Sciences

**BSc (Hons) Computer  
Games Development**

[www.uws.ac.uk/ug](http://www.uws.ac.uk/ug)

# BSc (Hons) Computer Games Development



<b>Entry criteria:</b>	For further information regarding course entry criteria, visit <a href="http://www.uws.ac.uk/ug">www.uws.ac.uk/ug</a>
<b>Intake:</b>	September
<b>Duration/ Mode of study:</b>	4 years full time or 5 years with a year in industry (direct entry)
<b>Campus:</b>	Paisley
<b>UCAS Code:</b>	G610

## What is Computer Games Development?

Computer games form a significant part of the creative industries and a large amount of gaming occurs on games consoles, PCs, smartphones, tablets, internet sites and social networking spaces. The developers of forthcoming game releases often work in studio environments as part of large development teams. Independent game development studios on the other hand are created by small teams of game developers. Games developers require a vast array of skill sets to work within a very competitive and evolving industry. Technical proficiency, team working and communication skills, adhering to project deadlines, flexibility, creativity and ingenuity, commitment and motivation are all important. Skill sets within the games industry are often dictated by choice of job role. For example, strong programming skills would be required for games console development whereas sound aesthetical awareness would be essential for a level designer.

The Computer Games Development degree prepares graduates for employment in the rapidly changing games industry. The generic skills provided by the degree programme also equips games development graduates for jobs within the software development and web and mobile industries.

## About the programme

The aim of the course is to enhance students' understanding and knowledge of the games development life-cycle from a practical and theoretical perspective. The degree is industry driven adhering to the requirements and skill sets demanded by the games industry. Furthermore, the course has strong industry links with major studios such as Axis Animation and Dovetail Games. Throughout the duration of the course, guest speakers from the creative industries attend lectures to inform the students about working in games, animation and web and mobile environments. There is also a strong emphasis on portfolio development throughout the course with regular student-industry showcasing events organised. A Games Development Society run by game development students organises regular game jam events and provides a sense of community among the game students. There is a strong emphasis on arranging student work experience placements and potential internships with local game and animation studios. This enhances student experience within the Creative Industries preparing them for the world of work in their chosen niche area in the games area.





## Programme content

### Year 1

In their first year, students learn about working in the games industry, are introduced to the fundamental concepts of game development via the use of GameMaker and Unreal Engine, learn about computer animation techniques, the professional aspects of creative computing and developing their programming skills with C#.

### Year 2

Students deepen their knowledge and understanding of game design with emphasis on prototyping and evaluation of their games via known software testing methodologies. There is a stronger focus on the use of the major industry game engines, Unity and Unreal Engine. Students further embed their C# skills through the use of Unity and Visual Studio focusing on software development for games. The theory and practice of level design is also explored where students can create game levels or environments in 2D, 2.5D or 3D using Unity or Unreal Engine.



### Year 3

During third year, students advance their skills and techniques using game engines to create more complex and realistic games. Students are also introduced to aspects of virtual reality (VR) and augmented reality (AR). At this stage of the course there is also a focus on mobile games development concentrating on JavaScript Game frameworks in addition to using HTML5. Guest speakers from the Creative Industries (animation, games, web & mobile) provide guest lecturers to the students about working in an evolving and competitive industry. This is covered in the subject Creative Technologies Professionalism. In their third year games development project, students develop a core portfolio piece adhering to the games development lifecycle (GDLC). This allows for further understanding and enhancing of their use of game engines (eg Unity and Unreal Engine).

### Year 4

Fourth year is more intense where the students undertake their Honours Dissertation, focusing on the practical development and application of a game. This predominately relates towards a games related research topic (e.g. use of AR or VR games towards a certain area). In their final year students learn about the concept of Serious Games, games and associated software tools for non-entertainment purposes. Honours year also involves students developing games associated with 3D multi-user virtual environments.

## Advancing your learning

The University has extensive computing facilities, in particular specialist game development studios featuring dual monitor high spec PCs and the software for modern game development. The games facilities are complemented by animation studios and music facilities which games students can call upon when required. General computing support is available across the day and into the evening. Access to computing facilities is available beyond teaching hours.

## Student support

Student support and guidance is very important to us. In addition to support provided by Programme Leaders, there are three key roles within the School's student support network: the Personal Tutor (each student is allocated one), the Student Enhancement Developer and the Education Guidance Adviser. They will be able to provide guidance and advice on a range of key matters such as (but not exclusively), health and wellbeing; funding; exams and assessment; study skills; attendance and engagement; and careers. Students may also be referred for specialist advice, to the central student support teams based on each campus at the Student Hub/Link.



## Opportunities for further study

Students can progress to postgraduate study in games related areas at MSc and PhD level as well as in the wider area of postgraduate computing.

## Professional recognition

This degree is accredited by the British Computer Society, fully meeting the educational requirements for Chartered IT Professional registration.



## Career prospects

UWS Computer Games Development Graduates enjoy careers in Creative Industry companies that might be either games, animation or web and mobile related. Companies where Computer Games Development graduates have found employment include: Rockstar Games, PlayStation, Solus, Spartan Solutions Ltd, Voice Technologies and Eureka Solutions. Games Development graduates have also established their own independent games studios working on a freelance basis.

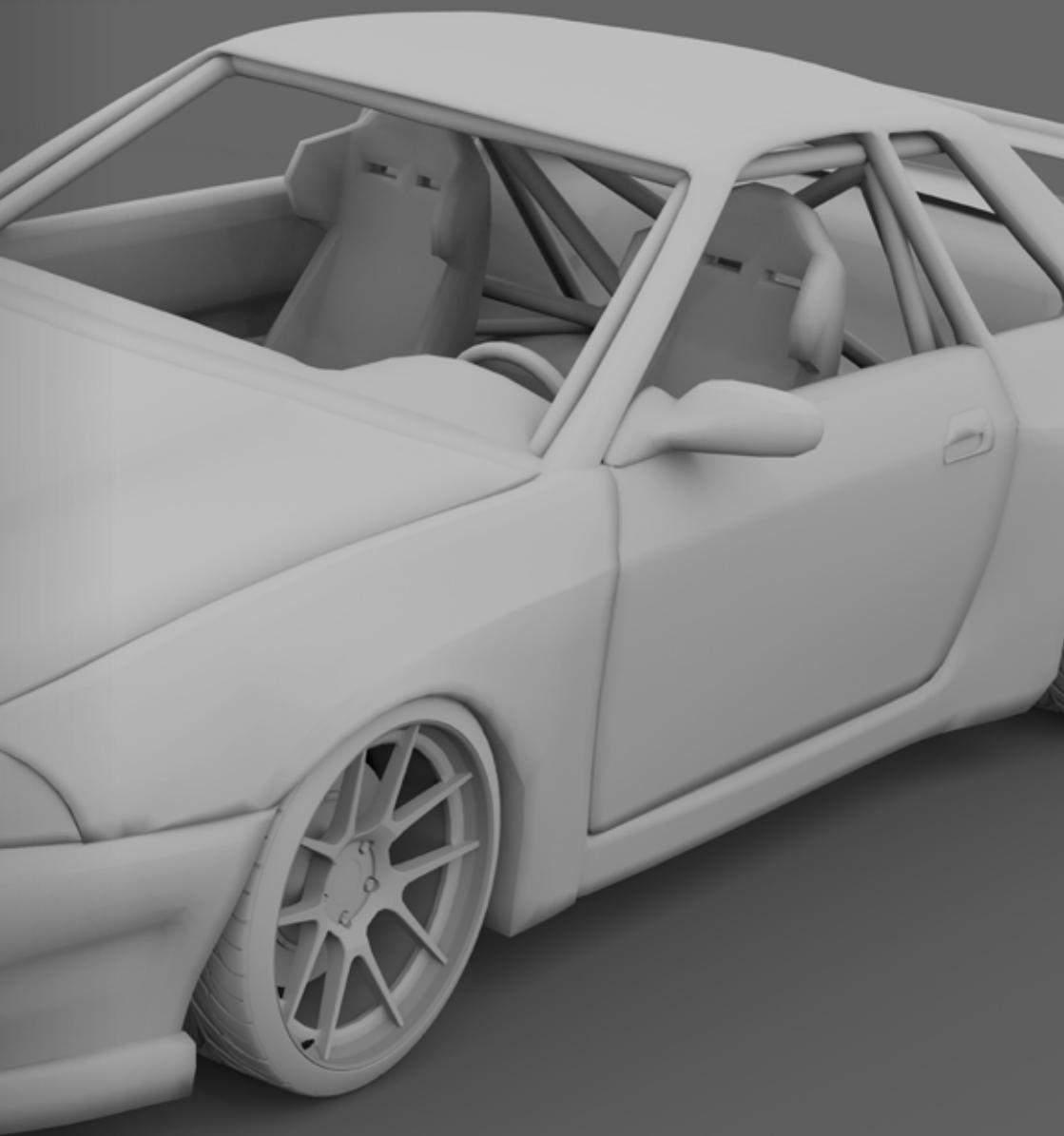
## What our students and graduates say

“BSc Computer Games Development has assisted me on improving my general workflow and attitude towards the Computer Games industry, through knowledgeable staff, guest lectures from industry professionals, well-written critique and overall, a positive and self-improving attitude towards students. Ever since I arrived after college, I got the sense that I picked the best course for myself, and I can guarantee others feel the same. If someone wishes to learn the ropes of Computer Games Development, then I cannot recommend anything higher than BSc Computer Games Development at UWS!”

***Games Development student, Ross Kilpatrick***

“In my time on the BSc Computer Games Development course I learned a number of new skills, techniques and best practices, which improved my skills and knowledge in designing and programming games, as well as how to manage both solo and team based projects. The course staff are extremely helpful in all aspects of the degree and provide constant detailed feedback on your work to help you improve skills and quality of work, which in my experience helps make you stand out to employers. As well as helpful and knowledgeable staff the course also provides talks, events and mentoring opportunities from industry, which can help massively in not just increasing your technical knowledge but your self confidence in putting your work into the public domain and applying for industry jobs. If someone is looking to get the knowledge required and get their foot in the door of the games development industry, the skills and knowledge they will learn at UWS will help them reach this goal.”

***Games Development Graduate, Daniel Taylor, Software Developer at Spartan Solutions Ltd***





## APPLY

For info on how to apply visit [www.uws.ac.uk/ug](http://www.uws.ac.uk/ug)

The UWS UCAS Code is U40.

## CONTACT US

Thomas Hainey, Computer Games Development,  
Programme Leader

Tel: 0141 849 4182

Email: [thomas.hainey@uws.ac.uk](mailto:thomas.hainey@uws.ac.uk)

Applicant Enquiry Team

Email: [ask@uws.ac.uk](mailto:ask@uws.ac.uk)

Telephone: 0800 027 1000

Outside UK telephone number: (+44 141) 849 4101

**Dreaming, Believing, Achieving**  
A 21st century university