

# University of Greenwich

## BSc (Hons) Games Design and Development

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### 1. INTRODUCTION

The BSc (Hons) Games Design and Development programme of study at the University of Greenwich is an established degree that has evolved with the industry and technological developments over the last two decades.

### 2. EXTERNAL ACTIVITIES AND GRADUATE DESTINATIONS

The video games industry is now more lucrative than the film industry, with London and the South East accounting for 43.3% of the UK industry headcount (TIGA 2018). University of Greenwich works closely with industry to host events with games entertainment studio Space Ape and organises the London Unity Usergroup, a monthly networking group with over 2,900 members, hosted at various games and digital media studios such as King and Space Ape. University of Greenwich has produced graduates working at game studios such as Bossa, Rocksteady and Mediatonic, but also graduates who have entered the growing sectors of Virtual Reality, creative production agencies and simulation with companies such as the award-winning REWIND and built environment specialists Arup.

### 3. PROGRAMME STRUCTURE AND GOALS

During their initial studies, students are taught the technical and creative sides of the games industry – scripting and programming languages such as JavaScript and C#, as well as learning about game theory and design. The first-year curriculum also covers 3D modelling as well as the foundations of digital media design, visual communication and video production. Once students have the basics in place, they will begin to develop their specialism from a range of diverse courses. Students will have options to progress their programming ability with

courses in C++, refine their 3D modelling and animation skills in the second year. They will also mature their production, team working and research capabilities in a series of courses that prepare them for becoming independent and critical in their fields. In their final year, students will work in teams for the core games course, identifying and honing their specialism to create a publishable game concept with fellow students with other diverse skillsets. Students will be able to study specialist courses where artificial intelligence, virtual reality, augmented reality, emergent technologies, advanced modelling and character animation feature in the portfolio of courses. The final year project enables students to develop their skills in a key area of games design and development creating a deep knowledge of a specialist area. It is the amalgamation of the research-led teaching approach and product based assessment at university of Greenwich. Students are encouraged to treat the project as a small research project where they would study the literature, find gaps and apply research-informed approaches to addressing this gap. They produce a product as a proof-of-concept in order to evaluate/validate the hypothesis. This has led to final year projects being presented at industry-led conferences (Sheehan 2017) and published in academic proceedings (Daylamani-Zad, Graham & Paraskevopoulos 2017).

### 4. REFERENCES

- Daylamani-Zad, D., Graham, L. B., and Paraskevopoulos, I. T. (2017) Swarm Intelligence for Autonomous Cooperative Agents in Battles for Real-Time Strategy Games. *Proceedings of VS-Games*. DOI: [10.1109/VS-GAMES.2017.8055809](https://doi.org/10.1109/VS-GAMES.2017.8055809)
- Sheehan, N. (2017) Investigating ways to prevent game exploitation. *Develop: Brighton*. Brighton, UK.
- TIGA (2018) About the UK Video Games Industry. <http://tiga.org/about-tiga-and-our-industry/about-uk-video-games-industry> (retrieved 9 April 2018).