UNIVERSITY of BRADFORD

Faculty of Engineering and Digital Technologies

https://www.bradford.ac.uk/courses/ug/graphics-for-games-ba/

BA (Hons) Graphics for Games Programme Specification

Academic Year:	**2023/24**
Degree Awarding Body:	**University of Bradford**
Final and interim award(s):	BA (Honours) [Framework for Higher Education Qualifications level 6]
	Diploma of Higher Education [Framework for Higher Education Qualifications level 5]
	Certificate of Higher Education [Framework for Higher Education Qualifications level 4]
Programme duration:	3 years full time; 4 years full-time including a year of study abroad or a work placement
UCAS code:	WI26, W2I6
QAA Subject benchmark statement(s):	Computing; Art and Design; Communication, Media, Film & Cultural Studies
Date last confirmed and/or minor modification approved by Faculty Board.	March 2019; September 2020

Please note: This programme specification has been published in advance of the academic year to which it applies. Every effort has been made to ensure that the information is accurate at the time of publication, but changes may occur given the interval between publishing and commencement of teaching. Any change which impacts the terms and conditions of an applicant's offer will be communicated to them. Upon commencement of the programme, students will receive further detail about their course and any minor changes will be discussed and/or communicated at this point.

Introduction

Even in the current slow economic times, the creative industries are consistently growing in the UK and internationally. As computer game development technology is capable of producing ever more spectacular output, the operators using the technology must be equipped with the skills and ideas to get the most from its continued advances in both software and hardware. Graduates who can demonstrate strong creative and technical aptitude and a critical understanding of the workings of the industry are very much in demand. Studying hard on a degree here will equip students for a rewarding career within the games industry.

The School of Built Environment, Architecture and Creative Industries is part of Bradford University's Faculty of Engineering and Digital Technologies, and it offers cutting edge undergraduate and postgraduate degree programmes in the fields of computer games development, creative solution design, and computer animation. These are delivered against a background of internationally recognised research in computer animation, virtual reality, distributed virtual environments, visualization, imaging, multimedia, digital video, human computer interaction, artificial intelligence and more.

Employability is one of our key values, and many of our graduates go on to exciting jobs in the computer game, animation, visual effects, interactive and wider new media industries, regularly winning national and international awards for their work. While our programmes provide students with specific sets of practical production skills, they also enhance their overall employability through their extensive use of team-working and problem-solving approaches to learning.

Programme Aims

The programme is intended to:

- Equip students who wish to develop expertise in the creative, aesthetic and technical aspects of computer game graphics and design, supported by a range of relevant audio-visual media disciplines.

- On this programme, students will develop their creative skills through study of the basics of game level design and creation, 3D computer animation, observational drawing and image production and manipulation, putting all these elements into practice through practical project-based modules. While the main emphasis is on content creation (helping students to produce a strong portfolio of work on graduation), the programme also provides students with an appreciation of the social, aesthetic, and business contexts within which media artefacts are produced and circulated.

- The Schoolaims to provide Honours degree programmes which enable students to develop an integrated range of knowledge, understanding and skills in the field of computer game development through critical engagement with principles, applications, content design and production practice. In addition, the programmes aim actively to encourage students to develop a portfolio of appropriate transferable skills and attributes. For the Graphics for Games programme, these aims are achieved by:

  - Delivering a programme of study with some opportunities for shared learning with other programmes offered within the School, with increasing specialization as students move towards graduation. The final year of the programme focuses mainly on project production, allowing students to integrate the skills and knowledge developed in the first two years of the programme into both group and individual specialised projects.

  - Providing a supportive, structured environment in which students are encouraged to develop independent learning skills.

- Developing subject knowledge and understanding, developing discipline skills and personal transferable skills, enabling graduates to pursue programmes of further study, or to move directly into responsible employment.

Programme Learning Outcomes

To be eligible for the award of Certificate of Higher Education at FHEQ level 4, students will be able to:

1. Outline a broad knowledge base of fundamental technical, practical, creative and theoretical concepts.

2. Recognise select and apply the above to your work.

3. Show an awareness of practical and conceptual knowledge of major subjects including the foundation skills associated with art production and technical issues surrounding graphical content and game design.

4. Apply creative skills to successfully accomplish straightforward tasks.

5. Work effectively as an individual, able to organise and manage yourself to secure completion of tasks.

6. Apply technical / creative / theoretical knowledge in the fields of game design and game engine use, 3D modelling and animation.

7. Collect information, ideas and concepts from recommended sources and organise and reference them appropriately.

8. Additionally, to be eligible for the award of Diploma of Higher Education at FHEQ level 5, students will be able to:

9. Analyse and evaluate information on game development and the global games industry market.

10. Apply the above information to your own work, particularly identifying opportunities for the development of your own portfolio of industry facing work.

11. Explain and manipulate knowledge in key practical and technical areas and apply it to your individual and group projects.

12. Apply practical and technical skills of observational drawing, concept art and idea development, 3D modelling for real-time and specialist animation processes.

13. Apply project management skills, to select and deploy strategies to secure outcomes and aid your development as an autonomous learner.

    Additionally, to be eligible for the award of Honours Degree of Bachelor at FHEQ level 6, students will be able to:

14. Critically review, consolidate, appraise and be ready to extend considerable specialist knowledge in games and games graphics creation and implementation.

15. Synthesise academic, conceptual, communicational, and project management skills.

16. Effectively implement deeper, more rigid project management on both, a personal and group standing.

17. Initiate, plan, design, research and sustain an extended piece of independent intellectual work, or original practical work with intellectual or conceptual elements based on individual initiative.

Curriculum

Stage 1

FHEQ Level	Module Title	Core	Credits	Semester (s)	Module Code
4	Introduction to 3D Computer Animation	C	20	1	GAV4007-B
4	Drawing for Production	C	20	1	GAV4012-B
4	Creative Studio Production	C	20	1	FAM4020-B
4	Play Theory and Practice	C	20	2	GAV4014-B
4	History and Conventions of Computer Games	C	20	2	GAV4002-B
4	3D Character Modelling and Animation	C	20	2	GAV4003-B

At the end of Stage 1, students will be eligible to exit with the award of Certificate of Higher Education if they have successfully completed at least 120 credits and achieved the award learning outcomes.

Stage 2

FHEQ Level	Module Title	Core/ Option	Credits	Semester (s)	Module Code
5	Game Appreciation and Industry Analysis	C	20	1	GAV5010-B
5	Advanced Drawing for Production	C	20	1	GAV5020-B
5	Advanced Character Animation	C	20	1	GAV5007-B
5	3D Character Creation	C	20	2	GAV5012-B
5	Look Development, Environment Creation, Lighting and Rendering	C	20	2	GAV5029-B
5	Facial Modelling/Animation	O	20	2	GAV5005-B
5	Storytelling, Narrative and Experience	O	20	2	FAM5019-B

At the end of stage 2, students will be eligible to exit with the award of Diploma of Higher Education if they have successfully completed at least 240 credits and achieved the award learning outcomes.

Stage 3

FHEQ Level	Module Title	Core/ Option	Credits	Semester (s)	Module Code
6	Individual Project	C	60	1+2	GAV6017-E
6	Group Project	C	40	1	GAV6015-D
5	Storytelling, Narrative and Experience	O	20	2	FAM5019-B
6	Motion Capture	O	20	2	GAV6018-B
5	Facial Modelling/Animation	O	20	2	GAV5005-B

Students will be eligible for the award of Honours Degree of Bachelor if they have successfully completed at least 360 credits and achieved the award learning outcomes.

The curriculum may change, subject to the University's programme approval, monitoring and review procedures.

Placement and/or Study Abroad
This programme provides the option for students to undertake a work placement or period of study abroad between Stages 2 and 3. Students wishing to take this option will be registered for the 4 year programme.

On successful completion of the ENG5002-Z, placement, students will be eligible for the award of University Diploma Industrial Studies.

On successful completion of the ENG5004-Z, study abroad experience, students will be eligible for the award of University Diploma Industrial Studies (International).

For further information about study abroad opportunities please refer to

https://www.bradford.ac.uk/study/abroad/

Learning and Teaching Strategy
Students will experience a wide range of teaching and learning environments. Concepts, principles and theories are generally explored in formal lectures, discussed and debated in associated tutorials and seminars, and demonstrated in laboratory classes. Practical skills are developed in studio, laboratory, and workshop sessions, taking advantage of the University's, and its partners', extensive software and hardware provision. Professional, personal, and presentational skills are developed through discussion and small-scale project work which involves problem solving and design exercises. These are often tackled through collaborative learning in small groups supported by members of academic staff. Larger–scale project work is used to bring various aspects of the programme together. A

particular strength of this programme is the contribution made to the teaching programme by successful practising animation professionals.

Each 20-credit module on the programme requires students to commit 200 hours of study. Some of these hours will be formally timetabled - lectures, laboratories, seminars, tutorials and workshops – and others will involve students in carrying out private study. The balance between these forms of study changes as students pass through the three years of the programme. There are a lot of "contact hours" (time spent with tutors) in the earlier stages of the programme; the final year is mostly project based, and at this stage students will be expected to manage their own learning, under the general guidance of their tutors.

Basic principles and concepts are addressed in the first year (Stage One) of the programme. In the second year (Stage Two) a more analytical approach is taken, and in the final year (Stage Three) students will have the opportunity to synthesise and critically review the knowledge, understanding, and skills they have gained throughout the programme. Students will also have the opportunity to shape elements of their own learning experience, by selecting optional and elective modules, and defining their own project briefs.

Assessment Strategy

Methods of assessment are varied, and student progress will be assessed using a mix of formal examinations, presentations and seminar papers, reports, coursework assignments, and projects. The appropriate method is chosen so that students may demonstrate the particular learning outcomes of each module.

The course has a commitment to industry practice within the curriculum. This is reinforced by the industry speakers and guest lecturers that are built into the delivery of our industry facing modules.

All modules contain elements of practical assessment, and these form a working portfolio which is assessed in the final project modules at Stage 3. Employability is built into all our courses in both core and optional modules. Employability and destination planning are very much entrenched within the reflective and practical modules throughout the curriculum.

Assessment Regulations

This Programme conforms to the standard University Regulations which are available at the following link: https://www.bradford.ac.uk/regulations/

Admission Requirements

The University welcomes applications from all potential students and most important in the decision to offer a place is our assessment of a candidate's potential to benefit from their studies and of their ability to succeed on this particular programme. Consideration of applications will be based on a combination of formal academic qualifications and other relevant experience.

The minimum entry requirements for the programme are as follows:

A typical offer to someone seeking entry through the UCAS scheme would be 112 points to include 64 points from 2 GCE A levels or equivalent. No specific subject requirements,

although those involving numeracy, ICT and English will be an advantage. GCSE English and Maths at a minimum grade C or grade 4 is required and, for overseas applicants, a minimum IELTS at 6.0 or the equivalent.

Applications are welcome from mature students (typically those over 21 years of age on entry) and candidates with non-standard qualifications or who, lacking academic qualifications, have significant relevant experience. On completion of a UCAS form students will be invited to the School for an Open Day where they will have the opportunity to meet staff, view the facilities and discuss "the Bradford experience" with current students.

Recognition of Prior Learning

If applicants have prior certificated learning or professional experience which may be equivalent to parts of this programme, the University has procedures to evaluate and recognise this learning in order to provide applicants with exemptions from specified modules or parts of the programme.

Minor Modification Schedule

Version Number	Brief description of Modification	Date of Approval (Faculty Board)
1	Revision of Final Year structure	June 2017
2	Change of linked modules to single semester modules	January 2019
3	Change in optional modules	March 2019
4	Specification reformatted and made accessible	December 2020
5	Changes made for 2021 academic year	June 2021
6	Re-structure of Stage 3	February 2022
7	Annual changes for 2022/2023 academic year	March 2022
8	Annual changes for 2022/2023 academic year	March 2023