UNIVERSITY of BRADFORD

Faculty of Engineering and Informatics

Programme Specification

Programme title: BSc (Hons) Game Design and Development

Academic Year:	2019/20
Degree Awarding Body:	University of Bradford
Partner(s), delivery organisation or support provider (if appropriate):	N/A
Final and interim award(s):	BSc (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 accredited by (if appropriate):	N/A
Programme duration:	3 years full time; 4 years full-time including a year of study abroad and/or a work placement.
UCAS code:	I621 and I622
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

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 difficult economic times, creative industries are growing in the UK and internationally. As computer game development technology is capable of producing ever more varied output, the operators of the technology must be equipped with the skills and ideas to get the most from it. 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.

The School of Media Design and Technology is part of Bradford University's Faculty of Engineering and Informatics, and it offers cutting edge undergraduate and postgraduate degree programmes in the fields of computer games development 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.

The School is a partner of Creative Skillset, the sector skills council for the creative industries, which is an acknowledgement of its clear links to industry and indicates the relevance of its programmes for employment in the media sector. Our other partners include the BBC, the National Science and Media Museum, and Bradford UNESCO City of Film.

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 development, with the skills to succeed, 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 user interface design, game genres, styles of game play, strategy, the history of games, 3D computer animation, artificial intelligence, image production and manipulation and key programming concepts, putting all these elements into practice through project 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 School aims to provide Honours degree programmes which enable students to develop an integrated range of knowledge, understanding and skills in the field of computer games 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 **Game Design and Development** programme, these aims are achieved by:

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

- 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:

LO1   Explain the core underpinning present and historical knowledge related to game design and development.

LO2   Describe and apply the fundamental principles and techniques of game design and animation to an individual element of a computer game.

LO3   Describe a range of widely used computing applications in the field including features of and limitations on their use.

LO4   Apply fundamental concepts, principles and theories underpinning game design and development to straightforward situations with defined requirements.

LO5   Collect, organise and present different data types using appropriate techniques in specific areas.

LO6   Apply basic knowledge of the principles of research design, and data collection and skills, to support the design of games.

LO7   Work effectively as individuals and in groups. Use personal skills to communicate effectively in a range of situations.

LO8   Communicate accurately and reliably with a range of audiences using basic theories and concepts of the subjects of study.

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

LO9   Apply knowledge and skills in games design to the analysis of complex applications and production issues in games.

LO10   Apply knowledge of investigative and research principles to demonstrate an understanding of how to evaluate designs, processes and products.

LO11   Apply knowledge of relevant software to game problems and systems.

LO12   Apply knowledge of techniques and theory of scripting gameplay events and processing to the assessment and management of specific creative challenges.

LO13   Use practical skills in the production of game assets drawing on a range of professional skills in the development of these objects.

LO14   Use personal and technical skills to communicate effectively within computer gaming environments with other professionals.

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

LO15   Synthesise a comprehensive and coherent knowledge, understanding and application of games and game development.

LO16   Evaluate appropriate aspects of theory and practice in computer animation and gameplay design and implementation.

LO17   Synthesise, evaluate, choose and apply solutions to open-ended game development challenges and situations in a critical manner.

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

LO18   Research a range of contemporary, relatively complex game problems independently and in groups.

LO19   Contribute to research into game systems using appropriate data, sources and methodologies.

LO20   Act independently in planning and managing self-defined tasks with limited guidance.

LO21   Autonomously analyse, critique and challenge contemporary issues in games design.

LO22   Create output that demonstrates elements of novel design to a professional specification.

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	Introduction to Computer Programming for Games	C	20	1	GAV4005-B
4	Creativity and Imagination	C	20	1	FAM4001-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	Module Code
5	Game Appreciation and Industry Analysis	C	20	1	GAV5010-B
5	Script Programming and Technical Animation	C	20	1	GAV5001-B
5	Game Design Programming and Development	C	20	1	GAV5002-B
5	Storytelling, Narrative and Experience	C	20	2	FAM5019-B
5	Advanced Game Technology and Development	C	20	2	GAV5025-B
5	Environment, Set and Prop Creation (UG)	O	20	2	GAV5014-B
5	Application Programming and Development	O	20	2	GAV5019-B
5	Motion Capture and Digital Scanning	O	20	2	GAV5017-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	40	1	GAV6003-D
6	Major Project Preproduction	C	20	1	GAV6007-B
6	Major Project Production	C	40	2	GAV6008-D
5	Application Programming and Development	O	20	2	GAV5019-B
5	Look Development, Lighting and Advanced Rendering	O	20	2	GAV5016-B
5	Motion Capture and Digital Scanning	O	20	2	GAV5017-B

At the end of stage 3, 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 their 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.

Basic principles and concepts are addressed in the first year (Stage One) of the studies. 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. They 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, laboratory tests, essays, coursework assignments, and projects. The appropriate method is chosen so that students may demonstrate the particular learning outcomes of each module.

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:

http://www.bradford.ac.uk/aqpo/ordinances-and-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 subjects related to course content 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 applicants 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	Revised Final Year structure	2017
2	Revised curriculum structure and optional modules	March 2019