

## Faculty of Engineering and Informatics

### Programme Specification

**Programme title: BSc (Hons) Animation**

Academic Year:	2018-19
Degree Awarding Body:	University of Bradford
Partner(s), delivery organisation or support provider (if appropriate):	
Final and interim award(s):	BSc (Honours) [Framework for Higher Education Qualifications (FHEQ) 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	
QAA Subject benchmark statement(s):	Computing; Art and Design; Communication, Media, Film and Cultural Studies
Date of Senate Approval:	
Date last confirmed and/or minor modification approved by Faculty Board	June 2016

### Introduction

The creative industries are growing in the UK and internationally. As animation technology is capable of producing ever more spectacular output, the creative professionals using 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 (EI), and it offers cutting edge undergraduate and postgraduate degree programmes in the fields of computer animation and computer games development. 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 has strong links with the BBC and Creative Skillset, the sector skills council for the creative industries. Bradford is also the world's first UNESCO City of Film with whom we are also partners. The National Media Museum (NMeM), based in Bradford, provides both a unique learning environment and a large body of resources as well screenings, master classes and festivals.

Our partnerships and collaborations provide students with the opportunity to experience interdisciplinary, shared learning within a vibrant, creative environment. The programme takes a mixture of traditional and new approaches.

Employability is one of our key values, and many of our graduates go on to exciting jobs in the animation and visual effects, games, 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-generated animation, supported by a range of relevant audio-visual media disciplines.

On this programme students will develop their creative skills through study of traditional animation techniques, the basics of 3D and 2D computer animation, observational drawing, image production and manipulation, 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 animation 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 **Animation** 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 students 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:

- LO1 Explain the core underpinning knowledge and apply the fundamental principles and skills related to computer animation to straightforward situations with defined requirements;
- LO2 Describe a range of widely used computing applications in the field including features of and limitations on their use;
- LO3 Collect, organise and present different data types using appropriate techniques in specific areas;
- LO4 Apply and demonstrate basic knowledge of the principles of research design and data collection and skills in observational drawing
- LO5 Work effectively as individuals and in groups. Use personal skills to communicate effectively in a range of situation
- LO6 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:

- LO7 Outline knowledge and understanding of the principles and techniques relevant to computer animation. Apply this knowledge in the analysis of complex applications and production issues;
- LO8 Apply investigative and research principles to demonstrate an understanding of how to evaluate designs, processes and products;
- LO9 Apply knowledge of techniques and theory of image manipulation and processing to the assessment and management of specific creative challenges;
- LO10 Use practical traditional and computing skills in the production of graphics, animation, and models drawing on a range of professional skills in the development of these objects;
- LO11 Use personal and technical skills to communicate effectively within computing environments with other professionals.

To be eligible for the award of BSc (Honours) at FHEQ level 6, students will be able to:

- LO12 Analyse the development and scope of forms of production, post production and distribution with particular reference to 2D and 3D computer animation, a flexible familiarity with the generic attributes of applications software, awareness of the conventions within which media artefacts are produced and read, and a well-developed set of creative, problem solving, and team working skills.

- LO13 Critique the social, political, cultural, technical, and business conditions of animation production and reception in national and international contexts
- LO14 Apply the awareness of the concepts surrounding sustainability to the varied disciplines of animation production.
- LO15 Analyse and interpret aural, visual, and audio-visual material.
- LO16 Command practical skills in production, post production, data management & presentation, interpretation of information, IT and communication skills, and demonstrate experience of creative and systematic problem solving through reflective and enquiring learning. This includes teamwork and leadership, effective project management and personal management.
- LO17 Apply effective self-promotion and understand the value of having a web presence. Evaluate the value of networking within industry through a series of case studies.
- LO18 Develop, plan and create industry standard showreels and folio (or equivalent) that directly relates to the chosen field of study demonstrating effective self-promotional skills.

## Curriculum

### Stage 1

FHEQ Level	Module Title	Type (Core/option/elective)	Credits	Sem	Module Code
4	Creativity and Imagination	C	20	1	FAM4001-B
4	Introduction to 3D Computer Animation	C	20	1	GAV4007-B
4	3D Character Modelling and Animation	C	20	2	GAV4003-B
4	Conventions of Animation	C	20	2	GAV4001-B
4	Drawing for Production	C	20	1+2	GAV4012-B
4	Creative Industries - Foundations	C	20	1+2	GAV4006-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 (Honours)	Credits	Sem	Module Code
5	Advanced Character Animation	C	20	1	GAV5007-B

5	Classical Animation	C	20	1	GAV5021-B
5	Script Programming and Technical Animation	C	20	1	GAV5001-B
5	Facial Modelling and Animation	C	20	2	GAV5005-B
5	3D Character Creation	C	20	2	GAV5012-B
5	Look Development, Lighting and Advanced Rendering	O	20	2	GAV5016-B
5	Digital Compositing and Post Production	O	20	2	GAV5018-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
6	AI for Games	O	20	2	COS6017-B
6	Effects Animation & Dynamics for VFX	O	20	2	GAV6002-B
5	Application Programming & Development	O	20	2	GAV5019-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.

### 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 <http://www.bradford.ac.uk/international/erasmus-and-international-exchanges/>

## **Learning and Teaching Strategy**

This new programme is designed to provide specialist support for emergent digital animators. It provides both historical and theoretical context to animation techniques and technologies in order to develop reflective creative professionals.

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 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.

Methods of assessment are similarly 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.

The course has a commitment to industry practice within the curriculum. This is reinforced by the industry speakers and guest lecturers.

## **Assessment Strategy**

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 80 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 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.

## Modification Schedule

Version Number	Brief description of Modification	Date of Approval (Faculty Board)