

BSc (Hons) Film and Visual Effects Technology

<https://www.bradford.ac.uk/courses/ug/film-and-visual-effects-technology-bsc/>

Programme Catalogue

Academic Year
2020/21

Degree Awarding Body
The University of Bradford

Programme Admissions
September

Programme Duration
Full-time, 36 months (UCAS code W613) or
48 months (with placement or study abroad,
UCAS code W614).

Part-time (on application), 72 months.

Target Award
Honours Degree of Bachelor of Science (FHEQ
Level 6)

Interim or Exit Awards

Ordinary Degree of Bachelor (FHEQ Level 6)

Diploma of Higher Education (FHEQ Level 5)

Certificate of Higher Education (FHEQ Level 4)

Accreditation

No additional accreditations

QAA Subject Benchmarks

Communication, Media, Film and Cultural
Studies (2016)

Origination Date

November 2016

Publication Date

April 2021

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

We are exposed to the UK's Visual Effects (VFX) talent every day in films, on television, along with adverts, idents, trailers and video games. VFX is no longer merely the gloss on a film or television production, it is often integral to both story and style.

The UK's VFX industry is not only world renowned but also strategically important to the whole infrastructure of film production in the UK and the wider economy. VFX is one of the highest earning areas of the filmmaking process.

The UK attracts studios from all over the globe for pre-production, production and post-production due to quality of talent and favourable regulatory environment. VFX was a significant lure for the £597 million of inward film investment in 2010, a third of which had significant VFX needs.

As Film and Visual Effects technology is capable of producing ever more sophisticated and spectacular output, the operators must combine the artistic skills and ideas with a technical and scientific understanding to get the most from it.

Graduates who can demonstrate strong creative, technical and scientific aptitude along with 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 the University of Bradford's Faculty of Engineering and Informatics (EI), and it offers cutting edge undergraduate and postgraduate degree programmes in the fields of computer animation, visual effects, film and television production 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.

Employability is one of our key values, and our graduates go on to exciting jobs in the film, animation, 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, scientific and technical aspects of film and visual effects with skills needed to use the latest industry techniques and technologies.

The main emphasis is on content creation; be it artistic or technical (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 such media artefacts are produced and circulated.

The School provides an Honours degree programme which enables students to develop an integrated range of knowledge, understanding and skills in the field of Film and Visual Effects Technology through critical engagement with principles, applications, content design and production practice.

In addition, the programme actively aims to encourage students to develop a portfolio of appropriate transferable skills and attributes.

For the Film and Visual Effects Technology programme, these aims are achieved by:

- delivering opportunities for shared learning with other programmes offered by the School such as Film and Television Production and Animation, 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, discipline skills and personal transferable skills, enabling students to pursue programmes of further study, or to move directly into responsible employment.

Admission Requirements

We take into consideration a number of factors when assessing your application. It's not just about your grades; we take the time to understand your personal circumstances and make decisions based on your potential to thrive at university and beyond.

A typical applicant profile of a student applying through the UCAS scheme to BSc Film and Visual Effects Technology would be 112 points including 80 points from 2 GCE A levels, DMM in a relevant BTEC Diploma, or equivalent other qualifications.

There are no specific subject requirements, although subjects related to course content will be an advantage.

Applications from disabled students are considered on the same grounds as other students. Applicants may wish to check with the Disability Service before applying:

<https://www.bradford.ac.uk/disability/before/>

Recognition of Prior Learning

Applications are welcome from students with non-standard qualifications or mature students (those over 21 years of age on entry) with significant relevant experience.

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.

Language Competency

As the programme is taught in English, all applicants are required to have GCSE Grade 4 (national grade C) or above in English Language. Students whose first language is not English should have a minimum IELTS score of 6.0 or above or equivalent – see our full tariff at <https://www.bradford.ac.uk/international/entry-requirements/>

Programme Learning Outcomes

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

1. Describe the core underpinning knowledge and apply the fundamental principles and skills related to film and or visual effects to straightforward situations with defined requirements;
2. Describe a range of widely used computing applications in the field including features of and limitations on their use;
3. Utilise basic mathematics and theoretical Physics in the creation of visual effects;
4. Collect, organise and present different data types using appropriate techniques in specific areas;
5. Critique and develop lines of argument in regard to basic film and visual effects theories and concepts
6. Define the relationship between the film and visual effects industry

7. Utilise film and visual effects techniques and theories to create combined sequences
8. Demonstrate and apply basic knowledge of the principles of research design, and data collection and skills;
9. Work effectively as individuals and in groups. Use personal skills to communicate effectively in a range of situations;
10. 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:

11. Apply knowledge and skills in film and visual effects to the management, analysis and assessment of specific complex applications, challenges and production issues;
12. Apply knowledge of investigative and research principles to demonstrate an understanding of how to evaluate designs, processes and products;
13. Demonstrate and implement a mid-level understanding of programming, mathematics and physics in relation to the pertaining industry;
14. Use personal and technical skills to communicate effectively within computing environments with other professionals.

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

15. Critique the social, political, cultural, technical, and business conditions of film and visual effects production and reception in national and international contexts;
16. Apply the awareness of the concepts surrounding sustainability to the varied disciplines of film and visual effects production;

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

17. Demonstrate knowledge of and competence in major software applications packages, with particular reference to film, 2D and 3D computer animation, visual effects and compositing;
18. Demonstrate the ability to coherently combine and integrate a number of different data and media types, and to make informed judgements in the context of rapidly developing and converging media industries;
19. Exercise the ability to apply, in practice, current principles and techniques for film and visual effects and be able to appraise critically the relative efficiency of different approaches to film and visual effects problem solving;

20. Command practical skills in production, post production, data management and 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.

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 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 modules, and defining their own project briefs.

The course has a commitment to industry practice within the curriculum. This is reinforced by the industry speakers and guest lecturers which are built into the delivery of our industry facing modules. A number of optional, extra-curricular excursions are also available. Please note that there may be a small charge to students participating in some of these activities.

Assessment Strategy

Methods of assessment are similarly varied and 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. Employability is built into all our courses, and career planning is very much entrenched within the reflective and practical modules throughout the curriculum.

Assessment Regulations

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

Curriculum

Each year, or stage, of an Honours programme comprises 2 semesters with 60 credits being studied in each semester, 120 credits a year. Students may select

It is also possible to study on this programme on a part time basis over 6 years, with 60 credits per year being taken.

Students may be permitted to transfer to one of the Department's other BA/BSc programmes at the end of the first semester of Stage One and, exceptionally, to selected programmes at the end of semester two, Stage One.

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

Stage 1

Module Code	Module Title	Module Type	Credit	FHEQ Level	Study Period
FAM4001-B	Creativity and Imagination	Core	20	4	Sem 1
GAV4007-B	Introduction to 3D Computer Animation	Core	20	4	Sem 1
FAM4012-B	Moving Image Production	Core	20	4	Sem 1
GAV5019-B	Application Programming And Development	Core	20	5	Sem 2
FAM4005-B	Editing	Core	20	4	Sem 2
GAV4009-B	Introduction to Digital Visual Effects	Core	20	4	Sem 2

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

Module Code	Module Title	Module Type	Credit	FHEQ Level	Study Period
GAV5015-B	Digital Preparation, Rotoscoping and Matte Painting	Core	20	5	Sem 1
GAV5001-B	Script Programming and Technical Animation	Core	20	5	Sem 1
FAM5001-B	Soundscapes	Core	20	5	Sem 1
GAV5018-B	Digital Compositing and Post Production	Core	20	5	Sem 2
GAV5016-B	Look Development, Lighting and Advanced Rendering	Core	20	5	Sem 2
GAV6002-B	Effects Animation and Dynamics for VFX	Option	20	6	Sem 2
GAV5017-B	Motion Capture and Digital Scanning	Option	20	5	Sem 2

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

Module Code	Module Title	Module Type	Credit	FHEQ Level	Study Period
GAV6003-D	Individual Project	Core	40	6	Sem 1
GAV6007-B	Major Project Preproduction	Core	20	6	Sem 1
GAV6008-D	Major Project Production	Core	40	6	Sem 2
COS6017-B	AI for Games	Option	20	6	Sem 2
GAV6002-B *	Effects Animation and Dynamics for VFX	Option	20	6	Sem 2
GAV5005-B	Facial Modelling/Animation	Option	20	5	Sem 2
GAV5017-B *	Motion Capture and Digital Scanning	Option	20	5	Sem 2

* Option only available if module not already taken at Stage 2.

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, or to exit with the award of Degree of Bachelor (Ordinary) if they have successfully completed at least 300 credits and achieved the award learning outcomes.

Placement and Study Abroad

Students have the option to undertake an industrial placement, or of studying or working abroad for a year between stages 2 and 3; this option is strongly encouraged. The Faculty has an industrial training co-ordinator who has contacts with a large number of outside organisations and who assists in finding a placement. The University provides a wide range of opportunities and support for students to gain international experience. Both options provide the opportunity to gain valuable experience, and are viewed favourably by prospective employers.

Placement

Planning for the placement starts several months in advance usually in the first semester itself. The Faculty will provide information sessions. Those on the Part Time route are able to do this (on application) after they complete the 120 credits of taught programme.

University Diploma in Industrial Studies

Upon completing the period of placement, students should submit a completion report summarising key learning points & produce a presentation of your experience before re-entering the programme.

Module Code	Module Title	Module Type	Credits	FHEQ Level	Study Period
ENG5002-Z	Placement module	Placement	0	5	Full Year

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

Study Abroad Year

Instead of a placement, students can opt to study abroad for one year in one of our partner institutions worldwide, where students will be taught in English.

Any student wishing to study abroad for a year should contact at first instance the International Opportunities Team to discuss the available year abroad opportunities. Then, they will have to consult with the Faculty Exchange Coordinator on the academic aspects of the exchange including the programme and modules. The student will have significant freedom in the selection of institutions and modules during the year abroad exchange. Finally, the Bradford Programme leader will be informed and consulted about the exchange to ensure compliance with any Bradford programme requirements. During the exchange the students will have support from the relevant University services.

University Diploma in Industrial Studies (International)

You are required to keep a journal while on the study abroad year and will be in regular virtual contact with placement tutors. Upon completing the period of study abroad, students should come back on the programme and give a short presentation about your experience.

Module Code	Module Title	Module Type	Credit	FHEQ Level	Study period
ENG5004-Z	Study Abroad Experience	Placement	0	5	Full Year

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

Study Abroad Semester

Students who do not wish to take a full year out of their studies are welcome to explore available opportunities for a Study Abroad Semester that may be viable for them via our International Opportunities team.

A Study Abroad Semester can be available **ONLY** if the modules offered by the host institution allow the student to meet the learning outcomes of the Bradford Programme during Semester 1 **OR** Semester 2.

Any student wishing to study abroad for a semester should first contact the International Opportunities Team to explore the opportunities and funding in place and, secondly, the Faculty Exchange Coordinator to check if the available options and relevant modules are in line with the University requirements. Following these checks, the International Opportunities Team and the Faculty Exchange Coordinator will liaise with the relevant Programme Leader to validate the modules and the semester exchange.

The semester exchange requires students to study only modules suitable to the Bradford programme when abroad. Therefore, all modules selected for the exchange will have to be mapped to the Bradford programme learning outcomes and be approved by the Programme Leader and the Director of Studies in Bradford in advance of the exchange. During the exchange, if the student needs to change the modules, this can only be done after approval of the Programme Leader and Director of Programmes.

If the student fails a module abroad, the student must:

- a) inform immediately the International Opportunities Team and the Faculty Exchange Coordinator
- b) explore the possibility of re-taking any exams at the host institution.

During the exchange, students will have support from the relevant University services. All credit successfully obtained whilst on study abroad semester will count towards the student's final degree. Our International Opportunities team can advise students about the available funding to support their study or work experience abroad.

The list of exchange partners and network of Universities available for Study Abroad Semester, as well as further information about international opportunities can be found online at www.bradford.ac.uk/exchanges/current-students.

Study Abroad Semesters do not entitle students to an additional University award.

Please note: Some institutions are only available to undergraduate or postgraduate students. Any potential exchange is dependent on student eligibility, student finance, and the appropriate modules required to fulfil the requirements of the programme being available at either institution.

Minor Modification Schedule

Version Number	Brief description of Modification	Date of Approval (Faculty Board)
1	Changes to modules in Stages 1 and 2	March 2019
2	Minor edits	March 2020
3	Specification reformatted and made accessible. Updated support services text	April 2021
4		