Bournemouth University

The Faculty of Media and Communication

National Centre for Computer Animation

Postgraduate Computer Animation and Effects Framework

MA 3D Computer Animation
MA Digital Effects
MSc Computer Animation and Visual Effects

FRAMEWORK SPECIFICATION

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CONTENTS

1. BASIC FRAMEWORK DATA

Originating institution(s)	Bournemouth University
Award(s) and title(s)	MA / PG Dip / PG Cert 3D Computer Animation MA / PG Dip / PG Cert Digital Effects MSc / PG Dip / PG Cert Computer Animation and Visual Effects
HECOS Code(s) per programme/pathway	<u>MA 3D Computer Animation:</u> 100363: computer animation and visual effects 100048: design 100636: interactive and electronic design 100057: animation 100714: history of photography <u>MA Digital Effects:</u> 100363: computer animation and visual effects 100441: film production 100048: design 100636: interactive and electronic design 100717: visual and audio effects 100057: animation 100716: cinematography 100714: history of photography <u>MSc Computer Animation and Visual Effects:</u> 100400: applied mathematics 100736: human-computer interaction 100737: multimedia computing science 100753: systems analysis and design 100960: object-oriented programming 100363: computer animation and visual effects 100048: design 100636: interactive and electronic design 100057: animation
External reference points(s)	• The UK Quality Code for Higher Education in particular: ▪ Chapter A1: The National Level (incorporating the Framework for Higher Education Qualifications (FHEQ)); ▪ Chapter A2: The subject and qualification level, incorporating: o QAA Masters Degree Computing Subject Benchmark Statements (published May 2011) o QAA Honours Degree Art and Design Benchmark Statements (published March 2008); • **Professional, Statutory and Regulatory Bodies** Creative Skillset – Creative Skillset Accreditation Process: http://courses.creativeskillset.org/apply_for_creative_skillset_accreditation_following_a_universal_application_process

Professional, Statutory and Regulatory Body (PSRB) links	Creative Skillset course accreditation for: MA 3D Computer Animation MSc Computer Animation and Visual Effects
Place of delivery	Bournemouth University: Talbot Campus
Mode of delivery	Full-time
Credit structure	PG Cert: 60 Level M credits (ECTS 30) PG Dip: 120 Level M credits (ECTS 60) Masters: 180 Level M credits (ECTS 90)
Duration	1 year
Date of original approval(s)	1989 (previous versions of programmes) 2008 (version 1 of the framework)
Date of first intake	September 2014 (version 2 of the framework)
Placements	None
Partner(s) and model(s)	None
Date and version number of this Framework and Programmes Specification	April 2019- Version 2.4

NM 1516 09
FMC 1617 02, approved 20 October 2016; previously version 2.0.
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FMC1920 18, approved 31/03/2020, previously version 2.3

2. AIMS OF THE DOCUMENT

The aims of this document are to:

- Define the structure of the Postgraduate Computer Animation and Effects Framework
- Specify the programme degree names and groupings within the Framework
- Identify programmes and level learning outcomes
- Articulate the regulations governing the awards offered through the Framework

3. ACADEMIC AND PROFESSIONAL CONTEXTS

3.1 The National Centre for Computer Animation (NCCA)

The NCCA is currently managed within BU in the Faculty of Media and Communication under the title the Computer Animation Academic Group (CAAG). Over the years the terms have become, within the Media School, effectively synonymous. The NCCA was established in 1989 reflecting the importance of the research and industrial consultancy being undertaken by computer animation staff of what was then the Dorset Institute of Higher Education.

The Centre has the following terms of reference:

> The purpose of the NCCA is and shall be to encourage, foster, contribute to and promote the advancement of computer animation in the U.K. by all suitable means and in particular:
>
> - by acting as a centre of excellence and a centre of research in the computer animation field, by encouraging and establishing collaborative research between various educational institutions and the computer animation industry
> - by acting as a centre of excellence for education in the computer animation field
> - by acting as a focal point for computer animation activities, such as, seminars and conferences; thus acting as a centre for the dissemination of knowledge in the field
> - by providing a forum for discussion of the subject; by encouraging the exchange of information, cultivation of personal contacts and co-operation between individuals from both academia and industry
> - by establishing relations with other similar centres on an international level and establishing inter-European collaboration in research

The fusion of art with science is at the heart of the multidisciplinary approach to education and research in the field of animation and gives the NCCA it's distinctiveness from other institutions working in this area. The Centre's research work was rated 100% 4* (internationally leading) for the Esteem Indicators in the last Research Assessment Exercise.

The NCCA has an Industrial Advisory Board, which meets annually. Its members are drawn from the computer animation, visual effects and computer game sectors.

All teaching at the NCCA is an interdisciplinary mix of computer science, animation and Effects techniques. The students on the different pathways of the Computer Animation and Effects (CAE) framework are encouraged to collaborate at all levels of the course.

In November 2011, the NCCA received the Queens Anniversary Award for its contribution to world-leading excellence and pioneering development in computer animation. The Queen's Anniversary Prizes form part of the national honours system and are the most prestigious awards in UK education.

Recently a government report facilitated by NESTA and written by Alex Hope (Double Negative MD) and Ian Livingstone OBE (Life President of Eidos) identified Bournemouth as one of two institutions in the UK that is preparing graduates to work in the industry - http://www.nesta.org.uk/areas_of_work/creative_economy/skills_review

> *"In 2008-2009, the National Centre for Computer Animation (NCCA) at Bournemouth University provided two courses comprising 8 per cent of all those who qualified from visual effects courses that year in our skills audit. Our analysis of the Student Destination Survey shows that, within six months of graduating, 42 per cent of those for which we have destination data were in the film and visual effects industries, and a further 11 per cent were in video games. By contrast, only 12.5 per cent of graduates from all other courses had joined the visual effects or film industries over the same six-month period.* ***In fact, almost half of all graduates from specialist VFX courses who gained employment in the industry according to the Student Destination Survey had in fact graduated from Bournemouth University****."*
>
> *[Next Gen. Transforming the UK into the world's leading talent hub for the video games and visual effects industries, Ian Livingston and Alex Hope, 2011]*

In 2011, staff from the NCCA (with the help of a colleague in CEMP) proposed a number of initiatives which looked to augment the provision of study and commercial enterprise within the creative industries. This has regional, national and international importance. Lecturers and professional staff from both Bournemouth University and Arts University Bournemouth chose to collaborate on this initiative, enabling children, parents, teachers, students, academics, professionals and businesses to be involved in a number of opportunities within the creative sector.

These initiatives exist under the umbrella organisation called the International VFX Hub, which works across the NCCA and AUB's Media and Performance School.

Its remit includes:

- A brand new festival designed to celebrate the UK's visual effects and animation industry, inspire the next wave of talent and share the latest knowledge. This event is called BFX. It consists of a 6/7 week summer competition for the UK's best VFX and animation students. Teams will be mentored by experts from leading British studios including Framestore, Double-Negative, The Mill, MPC. Outpost VFX, Hibbert Ralph and Cinesite; and then assessed by a panel of independent judges. The best individuals on the winning teams will be given the opportunity to take up internships at some of the studios taking part in BFX.

- This is then followed by a festival which includes screenings, master classes, an awards ceremony and other exciting events taking place across Bournemouth in September. Speakers have included Industrial Light and Magic, Dreamworks, Double Negative, Framestore, MPC, Rhythm and Hues, Studio AKA, Glassworks, SEED Animation, Scott Eaton, Adam Redford, Melania Fodritto, Next Limit, Lionhead Studios, Crytek, Professor Stuart Sumida, JellyFish Pictures, The Mill, Professor Peter Parr, SIGGRAPH, Annecy and Rock, Paper Film.

- The creation of a commercial studio which works across both institutions and uses graduates and academics to facilitate real world projects.

- Attracting Animation and VFX studios to set up businesses in the Bournemouth and Poole area.

- Development of placements within the animation curricula across both universities.

- Development of Post-Doctoral partnerships with industries

3.2 Creative Skillset Accreditation

The CAE Framework has two pathways which are currently accredited by Creative Skillset, MSc Computer Animation & Visual Effects and MA in 3D Computer Animation. The Creative Skillset criteria for postgraduate animation courses outline the standards of excellence required by employers to address:

- The need to produce confident and creative students with appropriate knowledge and skills, who are reflective practitioners, aware of ethical, legal and compliance issues, and their own responsibility to those who use and consume their products.
- The need for highly-skilled graduates and postgraduates who are grounded in the realities of the Creative Industries.
- Clearer and more inclusive progression and entry routes to create a more diverse and creative workforce.
- The stimulation of more innovative and far-sighted creative talent.
- The development of entrepreneurial flair and leadership skills in graduates.

Courses should demonstrate high quality teaching, be well-designed and practice-based and enable students to specialise towards industry specified levels, supported by effective online learning, in order to:

- Ensure student work is informed by current industry practices but also encourage and reward projects which demonstrate innovation and provide a challenge to the status quo but within industry parameters.
- Develop partnerships with industry that are robust and provide added value.
- Recruit knowledgeable staff with recent, credible industry experience, and have staff development policies and opportunities to ensure staff can refresh their industry knowledge and develop their professional practice.
- Have in place recruitment and widening participation procedures which engage and track potential applicants from a variety of backgrounds through their course and beyond.
- Postgraduate courses should enable students to specialise in the field above the level expected from undergraduate students and gain in-depth knowledge and experience of their field at a professional level. Graduates from postgraduate courses should progress to senior levels in their career more quickly than their undergraduate counterparts.
- Ensure sufficient, up-to-date, well-managed facilities for students and staff.
- Ensure all students gain relevant industry experience and understandings through visiting lecturers and work placements/ experience/simulation.
- Have staff who understand new working practices, thus ensuring that all students are exploring the possibilities offered by these developments.

3.3 Rationale For The Academic Context

Computer animation and effects are one of the most rapidly expanding areas of creative endeavour and technical development. Computer-generated assets, sequences, special effects are found in feature films, television and other creative endeavours, and computer games are some of the more visible applications of computer animation.

The application of computer animation and effects continues to expand, particularly when we consider the growth of the global creative industries predicted in the next 10 years. This is an exciting, fast-changing and rewarding area to be involved with; well-qualified technical professionals in this area are, and will, in the foreseeable future, continue to be in great demand internationally and command substantial rewards.

Over the past decade both the technology and the creative application of this technology have reached such a level of maturity and sophistication that we begin to see a number of quite distinct and specialised areas of activity areas emerging. Such areas include computer animation, digital effects, computer games and pipeline development.

The courses in the CAE Framework address a number of areas in the above fields providing both specialist and generalist graduates who are in great demand in the Animation, Effects and Games industry.

The pathways within the CAE Framework are closely integrated. Each pathway runs concurrently and all have a significant degree of commonality. Although each pathway identifies a specialised area, the degree of overlap between the courses enables graduates to pursue a wide range of career aspirations.

The Framework strengths are fourfold:

- A unique blend of art and science, theory and practise
- Industry-standard hardware and software
- A qualified, experienced, academic team.
- Excellent industry contacts

Feedback from ex-students and discussions with industrial partners confirm our belief that there is a demand for graduates who have strong technical skills complemented by relevant artistic skills. This is a significant strength and differentiates us from the competition. Working with industry-standard hardware and software ensures that our graduates are desirable employees.

There has also been a noticeable shift over the last year by the Government and UK Media Skills Council to fuse art and science within all levels of education, with the celebration of STEAM (Science, Technology, Engineering, Arts and Maths) within the curricula. This is something the NCCA has being doing since 1989.

The NCCA's academic and technical support staff possess a wide range of skills that enables them to deliver the course to a high academic and professional level; this reinforced with regular industry input at many levels of the Framework.

The Framework Team works closely with industry and tries, where possible, to incorporate their recommendations into course content, resourcing and delivery. Their advice on matters of technology and software enable the Framework Team to keep abreast of a fast moving subject and ensures that the student experience is uncompromised.

3.4 Computer Animation and Effects Pathways

There are three distinct Pathways within the Full Time Taught CAE framework

- MA 3D Computer Animation
- MA Digital Effects
- MSc Computer Animation and Visual Effects

Each of the distinct Pathways has a mixture of specialist and common units across the Framework. MA Digital Effects and MA 3D Computer Animation have 60 Credits of common units across them both, with a further 60 Credits of specialist units within each pathway. The MSc Computer Animation and Visual Effects pathways only shares 40 Credits worth of Common Units with MA3D and MADE, with a further 80 Credits being attributed to specialist units within the MSc pathway.

Within each of the Pathways there are a number of common Framework intended learning outcomes that are shared, as well as more title specific outcomes. The delivery of the framework has been designed to fit within the Universities new Common Academic Structure (CAS)

The final Masters Project of each Pathway is intended to reflect the title of the discipline the student elects to focus on. This is worth 60 Credits.

Each individual pathway will also seek (where appropriate) alignment with the necessary Professional Bodies (we have no Statutory and Regulatory Bodies). At the start of the 2014 delivery, both the MA in 3D Computer Animation and MSc Computer Animation and Visual Effects are Skillset accredited. MA Digital Effects was unable to apply for similar accreditation because Skillset are in the process of announcing a bespoke system just for VFX courses.

3.5 QAA Benchmarks

> *"The study of art and design as an academic and intellectual pursuit develops a range of cognitive abilities related to the aesthetic, the moral, ethical and social contexts of human experience. The capacity to visualise the world from different perspectives is not only intrinsically worthwhile as a personal life skill, but is also an essential part of the human condition. The engagement in the study of art and design is therefore a commitment to improving the quality of one's own and others' cultural experiences. The manifestation of these essential human capacities has always been through the production of artefacts, often for cultural consumption. Thus the study of art and design has always provided a vocational outlet for creative endeavour. In a world that is becoming culturally more sophisticated and requires greater innovation and challenge, the cognitive abilities and practical skills of artists and designers are in increasing demand". [QAA UG Art & Design Benchmarks, 2008]*

The original MA Computer Visualisation and Animation programme was unique, having been designed without the guidelines that are available to today's programme designers. Nevertheless, the original programme's rationale had been carefully planned and incorporated many of the characteristics now recognised in the QAA's UG Art & Design Benchmarks, although these are limited as they refer to undergraduate study. Such benchmarks have been referenced to ensure that the current programme reflects the spirit and philosophy expected of a Masters Framework in art & design and the more technical subjects.

For example, academic and intellectual pursuits are paramount to this Framework and begin at the student selection process and conclude with a creative artefact from a student's major project. However, in Computer Animation and Digital Effects this endeavour can only be realised with an appropriate knowledge of computer science and mathematics. Mathematics provides the conceptual tools for modelling spatial structures, and computer science provides an environment where algorithmic approaches can be used to aid the production process.

More evidence of this can be seen in the QAA Illustrative specialisms and sub-disciplines PG Subject Benchmark for Computing [2011]

> *"The following list of topics is seen as defining the scope of the broad area of computing:-"*
>
> - computer engineering (which includes the design and development of computers, devices and associated technologies to serve a range of

purposes within diverse environments) as well as embedded and real time systems whose operation may have safety or security implications

- artificial intelligence and computational aspects of linguistics, cognitive computing, evolutionary computing and associated areas, including simulation and modelling and decision support
- entertainment systems and computer graphics, including animation
- topics such as data warehousing, data mining, forensic informatics, and technical issues involving the exploitation of computer arts and media
- systems concerns, as a disciplined recognition of the need to take an holistic perspective in the development of computing systems.

Marrying art with science in this way is a true intellectual challenge for any student and demands strong skills in art & design and an understanding of mathematics and logical reasoning. Fortunately, such students do exist, and continue to apply for this Programme of study.

> *"The creative and cultural industries sector continues to expand at a fast rate. Increasing demand for visual communication, rapid developments in technology, expanding public interests in the visual arts and media, and a growing awareness of what creativity and innovation can bring to many different industrial, commercial and service sectors, all contribute to the demand for education in the subject. Graduates in art and design disciplines have demonstrated that they are equipped with the appropriate skills and abilities to operate effectively in the marketplace. In particular, they display resourcefulness, entrepreneurial skills, and the capacity to establish new and innovative enterprises. Many are active as independent creative artists, designers or designer/makers, while some work in other fields where their attributes and skills are increasingly acknowledged, needed and valued as having wider application"*
> *[QAA UG Art & Design Benchmarks, 2008]*

Twenty years ago, computer animation and digital effects companies barely existed and employed approximately 10-20 personnel. Today, it is not unusual for the same company to employ 500+ personnel and this number is rapidly expanding, as is the number of new studios opening each year. The efficiency of digital technology and its success in providing a single electronic medium for every form of media continues to create new creative markets and new job functions. Animation was one of the first disciplines to be touched by digital technology and in a relatively short period of time its computer-based equivalent has emerged and established itself as the dominant medium.

Perhaps one of the most important aspects of digital integration and convergence is the ease with which graduates are able to join the Computer animation digital effects sector and contribute towards the national culture and creative industries (as stated in the quote above). This Framework of study is designed to develop such skills and abilities, and has required careful consideration in its implementation and execution. Each of the distinct Pathways has a number of common elements as well as specialist areas of study. Students applying to the Framework have already achieved a degree, or equivalent, in a field appropriate to the chosen pathway and their portfolio of work must demonstrate a developing aesthetic sensibility and creative capacity. Such skills will be further developed and contextualised in the medium of computer animation and digital effects.

Students are encouraged to develop their creative, animation and technical skills within the algorithmic domain of computer programs. This is a major challenge, but does develop their self-direction and originality in tackling and solving problems in a professional manner.

The Masters nature of the programme is reflected in a graduate's capacity to articulate and synthesise their knowledge and understanding of computer animation and digital effects in various ways. The masters' project is a substantial piece of work, appropriate to the selected

pathway which will provide employers with a useful tool to measure the intellectual and creative capacities of a graduate.

Marrying art with science provides a stimulating environment for students to explore and generate ideas and concepts that they would not normally encounter. This in turn forces them to speculate and argue independently and collaboratively about such ideas and realise a solution that is reasoned and can be substantiated. Potential employers regard these problem-solving skills very highly.

4. AIMS OF THE FRAMEWORK

4.1 Introduction

The field of computer animation and effects has always represented the marriage between art and science, and practitioners in this innovative and exciting field need an understanding of both the technical and the creative processes involved.

The Framework is designed to develop a student's understanding of the interdisciplinary culture that transcends the art/science divide. It allows students to explore the underlying technology and an informed understanding of the creative practices found in this field.

Framework ILO's

As well as the pathway specific ILOs, there are shared learning outcomes that transcend across the entire framework which are vitally important in creating a common learning environment that exposes the students to similar delivery patterns, objectives and assessment.

These are reflected in each pathway specific description, however in summary we have:

Subject Knowledge and Understanding

This Framework provides students with subject knowledge and understanding:

A1 In the strategic fusion of Art and Science languages appropriate for Computer Animation and Effects praxis

A2 Of design, research and observational techniques

A3 Of the theoretical and practical application of Computer Graphics to their own practise and associated disciplines.

Intellectual Skills

This Framework provides students with intellectual skills:

B1 The Critical contextualization of personal practise

B2 The analysis, synthesis and communication of Computer Animation and Effects praxis

B3 Independently managing and generating critical and effective research.

Transferable Skills

This pathway provides students with transferable skills:

D1 In planning and organisation to produce a project to a given time-scale

D2 To work effectively as a member of a team communicating with peers, supervisors and others

Projects are at the core of the Pathway, providing students with the environment for learning and academic development together with the evolution of their skills in the technical and creative aspects of computer animation.

4.2 Pathways

The Computer Animation and Effects Masters Framework comprises of a number of different full time taught Pathways. These are:

- MA 3D Computer Animation
- MA Digital Effects
- MSc Computer Animation and Visual Effects

Each of the Pathways share many common aims, with distinct specialist routes for the students. The Full time taught pathways aim to expand on knowledge gained either at undergraduate level or via work experience.

The Framework should be seen as a cohesive area of study with distinct Pathways.

4.3 Awards

Students have three awards available within the Computer Animation and Effects Framework, These exit points a Postgraduate Certificate, Postgraduate Diploma and Masters Respectively. All the outcomes apply to both the Postgraduate Diploma and Masters stages. Additionally the Masters stage provides opportunities for students to develop and demonstrate knowledge and understanding relevant to the Pathway title and as described in the respective Pathway matrix.

Master's degrees are awarded to students who have demonstrated:

- a systematic understanding of knowledge, and a critical awareness of current problems and/or new insights, much of which is at, or informed by, the forefront of their academic discipline, field of study, or area of professional practice;
- a comprehensive understanding of techniques applicable to their own research or advanced scholarship;
- originality in the application of knowledge, together with a practical understanding of how established techniques of research and enquiry are used to create and interpret knowledge in the discipline;
- conceptual understanding that enables the student:
    - to evaluate critically current research and advanced scholarship in the discipline;
    - to evaluate methodologies and develop critiques of them and, where appropriate, to propose new hypotheses.

Typically, holders of the qualification will be able to:

- deal with complex issues both systematically and creatively, make sound judgements in the absence of complete data, and communicate their conclusions clearly to specialist and non-specialist audiences;
- demonstrate self-direction and originality in tackling and solving problems, and act autonomously in planning and implementing tasks at a professional or equivalent level;
- continue to advance their knowledge and understanding, and to develop new skills to a high level;

and holders will have:

- the qualities and transferable skills necessary for employment requiring:
    - the exercise of initiative and personal responsibility;
    - decision-making in complex and unpredictable situations;
    - the independent learning ability required for continuing professional development.

5. INTENDED LEARNING OUTCOMES

5.1 MA 3D Computer Animation Pathway ILOs

AIMS OF THE PATHWAY

In addition to the aims of the Computer Animation and Effects Framework the MA 3D Computer Animation Pathway aims to enable students to become competent in the more artistically-focussed disciplines within computer animation and produce graduates with the range and depth of technical and artistic skills necessary to become future technical, character, or environment artists, animators, modellers, sculptors and riggers.

The pathway runs in parallel with the MA Digital Effects and MSc Computer Animation and Visual Effects Pathways. MA and MSc students are encouraged to collaborate in integrated projects to promote an interdisciplinary environment, a common culture and emulate business practice.

Additionally, the Pathway aims to develop in students:

- ♦ a knowledge and professional competence through the study and application of the theories, methods and practices used in CG productions.
- ♦ a creative and innovative approach to the analysis and solution of problems in CG productions.
- ♦ an understanding of the inter-relation of aesthetic, perceptual and technical factors involved in the development of CG productions, with a strong emphasis on the application of traditional artistic and design methodologies to CG productions.
- ♦ an attitude of self-reliance and self-discipline in the subject area as well as a capacity to collaborate effectively with other members of an interdisciplinary team

INTENDED LEARNING OUTCOMES

The MA3D Computer Animation Pathway provides opportunities for students to develop and demonstrate the knowledge, understanding and skills described in this section. Students will be expected to demonstrate self-direction and originality in tackling and solving problems, and act autonomously in planning and implementing tasks at a professional level.

Postgraduate Diploma and Certificate level learning outcomes are the composite of those attached to the units for which credit is awarded.

The MA3D Computer Animation Pathway will be delivered at the pace and depth expected of a Masters student.

SUBJECT KNOWLEDGE AND UNDERSTANDING

This Pathway provides students with subject knowledge and understanding:

A1 In the strategic fusion of Art and Science languages appropriate for Computer Animation and Effects praxis

A2 Of design, research and observational techniques

A3 Of the theoretical and practical application of Computer Graphics to their own practise and associated disciplines.

A4 Of the tools and techniques applicable to a student of MA3D Computer Animation, including animation, scripting, compositing, modelling, sculpting, character and environment creation, texturing, and rendering.

A5 Pertinent to a future career that focusses on the artistic aspects of CG, including environment, character and vehicle artists, animators and technical artists.

A6 Of the fundamental skills that underpin the tools and techniques found in MA3D Computer Animation disciplines, such as design methodologies, anatomy, composition and colour theory.

INTELLECTUAL SKILLS

This Pathway provides students with intellectual skills:

B1 The Critical contextualization of personal practise

B2 The analysis, synthesis and communication of Computer Animation and Effects praxis

B3 Independently managing and generating critical and effective research.

B4 For the production of substantial creative work that demonstrates an appropriate level of originality and mastery of their subject.

B5 In the selection and evaluation of correct techniques / tools in the production of assets, underpinned by the effective application of traditional methodologies.

SUBJECT-SPECIFIC SKILLS

This Pathway provides students with subject-specific skills:

C1 Such that they are proficient in the application of software and tools appropriate to their subject area.

C2 To enable the solving of complex animation, character, and environment pipeline issues through the identification and application of correct techniques for CGI production.

C3 To enable effective communication with artists in the development and application of animation tools and techniques

C4 In the application of design, anatomy and observational skills to CG projects

TRANSFERABLE SKILLS

This pathway provides students with transferable skills:

D1 In planning and organisation to produce a project to a given time-scale

D2 To work effectively as a member of a team communicating with peers, supervisors and others

D3 In personally motivated research, independent learning and problem solving ability required for continuing professional development.

D4 In the planning and production of either critical written reports, production proposals and/or production presentations.

5.2 MA Digital Effects Pathway ILOs

AIMS OF THE PATHWAY

In addition to the aims of the Computer Animation and Effects framework the MA Digital Effects Pathway is intended to produce graduates who can be ideally placed within the Digital Effects Industry, embracing its many different facets. These roles include Effects Animators, Compositors, Matte Painters, Modellers, Lighters, Look-Development Artists and Technical Directors.

The pathway runs in parallel with the MA 3D Computer Animation and MSc Computer Animation and Visual Effects Pathways. MA and MSc students are encouraged to collaborate in integrated projects to promote an interdisciplinary environment, a common culture and emulate business practice.

The Pathway aims to provide students with the skills to become creative practitioners of Digital Effects; the critical analytical eye for the judgement of high-end aesthetics; and the technical processes involved in generating Computer Generated Images for film and television productions.

These skills include:

- A clear knowledge and understanding of Digital Effects that will enable a student to navigate a successful career through a shifting Industry
- The placement of a student's own work within a critical framework specific to the many languages associated with visual images
- A technical grounding in the tools, systems and procedures associated with the generation of successful Digital Effects sequences
- The facilitation of problem solving through logic based systems
- The generation, mediation and effective communication of artefacts that will enable a student to gain expertise, confidence and success for their chosen path
- A professional inner self discipline, enabling a student to successfully work independently and collaboratively within an international, interdisciplinary, multicultural community

INTENDED LEARNING OUTCOMES

The MA Digital Effects Pathway provides opportunities for students to develop and demonstrate the knowledge, understanding and skills described in this section. Students will be expected to

demonstrate self-direction and originality in tackling and solving problems, and act autonomously in planning and implementing tasks at a professional level.

Postgraduate Diploma and Certificate level learning outcomes are the composite of those attached to the units for which credit is awarded.

The MA Digital Effects Pathway will be delivered at the pace and depth expected of a Masters student.

SUBJECT KNOWLEDGE AND UNDERSTANDING

This Pathway provides students with subject knowledge and understanding:

A1 In the strategic fusion of Art and Science languages appropriate for Computer Animation and Effects praxis

A2 Of design, research and observational techniques

A3 Of the theoretical and practical application of Computer Animation and Effects to their own practice and associated disciplines.

A4 In the creation of qualitative and original work informed by the forefront of Digital Effects praxis

A5 In the generation and implementation of tools and assets within a Computer Animation and Effects production pipeline.

A6 In the fundamentals of Computer Graphics

INTELLECTUAL SKILLS

This Pathway provides students with intellectual skills:

B1 For the critical contextualization of personal practise

B2 For the analysis, synthesis and communication of Computer Animation and Effects praxis

B3 For independently managing and generating critical and effective research.

B4 In the theory and practice of Digital Effects Production and Pipelines.

B5 In the clear communication of ideas through a subject-specific medium

SUBJECT-SPECIFIC SKILLS

This Pathway provides students with subject-specific skills:

C1 In expert use of software and tools appropriate to their discipline.

C2 In the contextual mediation of Digital Effects practice through written, spoken or visual artefacts.

C3 For the design and implementation of projects conceptually appropriate for Digital Effects.

C4 For generating new Computer Animation and Effects techniques and praxis

C5 For demonstrating mastery of Digital Effects

TRANSFERABLE SKILLS

This Pathway provides students with the following transferable skills:

D1 In planning and organisation to produce a project to a given time-scale

D2 To work effectively as a team, communicating with peers, supervisors and others

D3 In personally motivated research, independent learning and problem solving ability required for continuing professional development.

D4 In the planning and production of critical reports, proposals and presentations.

D5 In the underlying technology of Digital Effects praxis

5.3 MSc Computer Animation and Visual Effects Pathway ILOs

AIMS OF THE PATHWAY

In addition to the aims of the computer animation and effects framework the MSc Computer Animation and Visual Effects Pathway aims to enable students to become competent in the technical aspects of computer animation and produce graduates with the range and depth of technical skills necessary to become future Technical Directors/Artists or research and development engineers within the computer animation and computer games sectors.

The pathway runs in parallel with the MA 3D Computer Animation and MA Digital Effects Pathways. MA and MSc students are encouraged to collaborate in integrated projects to promote an interdisciplinary environment, a common culture and emulate business practice.

Additionally, the Pathway aims to develop in students:

- a knowledge and professional competence through the study and application of the theories, methods and practices of computer animation
- a creative and innovative approach to the analysis and solution of problems in computer animation production
- an understanding of the inter-relation of aesthetic, perceptual and technical factors involved in the development of computer animation productions
- an awareness of new application areas and research relating computer animation or games production
- an attitude of self-reliance and self-discipline in the subject area as well as a capacity to collaborate with other members of an interdisciplinary team

A further emphasis on the application of technical, mathematical and algorithmic skills is placed on the MSc Pathway, where students are encouraged to develop tools to aid in the production of animation / games artefacts.

INTENDED LEARNING OUTCOMES

The MSc Computer Animation and Visual Effects Pathway provides opportunities for students to develop and demonstrate the knowledge, understanding and skills described in this section. Students will be expected to demonstrate self-direction and originality in tackling and solving problems, and act autonomously in planning and implementing tasks at a professional level.

Postgraduate Diploma and Certificate level learning outcomes are the composite of those attached to the units for which credit is awarded.

The MSc Computer Animation and Visual Effects Pathway will be delivered at the pace and depth expected of a Masters student.

SUBJECT KNOWLEDGE AND UNDERSTANDING

This Pathway provides students with subject knowledge and understanding:

A1 In the strategic fusion of Art and Science languages appropriate for Computer Animation and Effects praxis

A2 Of design, research and observational techniques

A3 Of the theoretical and practical application of Computer Graphics to their own practise and associated disciplines.

A4 In articulating a comprehensive understanding of the techniques applicable to their own practice

A5 Of Mathematics and algorithms for computer graphics

A6 Of Software Engineering techniques for computer generated imagery, Technical Direction and pipeline.

INTELLECTUAL SKILLS

This Pathway provides students with intellectual skills:

B1 The Critical contextualization of personal practise

B2 The analysis, synthesis and communication of Computer Animation and Effects praxis

B3 Independently managing and generating critical and effective research.

B4 For production of a substantial creative work that demonstrates an appropriate level of originality and mastery of the subject

B5 In selection and evaluation of correct techniques / tools in the production of an asset

B6 In synthesis of current research and underlying theory for animation tools and software engineering

B7 To autonomously identify and solve CGI and or Games problems by the application of software engineering

SUBJECT-SPECIFIC SKILLS

This Pathway provides students with subject-specific skills:

C1 In proficiency in the application of software engineering practices to the whole lifecycle of an animation or games project.

C2 For a mastery of computer programming languages, tools and application programming interfaces for CGI / Games production.

C3 For solving complex animation pipeline issues.

C4 To identify and apply the correct techniques for CGI production.

C5 To communicate effectively with artists in the development and application of animation tools and techniques.

TRANSFERABLE SKILLS

This Pathway provides students with transferable skills:

D1 In planning and organisation to produce a project to a given time-scale

D2 To work effectively as a member of a team communicating with peers, supervisors and others

D3 In personally motivated research, independent learning and problem solving ability required for continuing professional development

D4 In the planning and production of critical written reports

D5 In the ability to communicate with peers, supervisors and others

6. LEARNING AND TEACHING STRATEGIES AND METHODS

The Computer Animation and Effects Framework employs a number of learning and teaching methods and strategies in the delivery of its subject matter. Knowledge and understanding, intellectual skills, practical skills and transferable skills are facilitated in a number of ways, manifesting itself in a manner pertinent to the level of study at the PG Cert, PG Dip and MA/MSc stage of the framework. For a more comprehensive overview of the mapping methods, please review the Programme Skills Matrix in the following section. However as a rule, the framework facilitates its learning outcomes by using a blended model of delivery, in which a variety of sessions are delivered in parallel to a project, production and theory based subject matter. This knowledge feeds directly to the students project work. A series of formal lectures will provide the main theory underlying animation principles and computer animation systems. Broader issues of the moving image are delivered by lectures, screenings, discussions and presentations.

Core knowledge and understanding within the subject of computer animation is acquired through projects, lectures, workshops, demonstrations, exercises and case studies. The delivery will also incorporate a blended model where appropriate, so that online video tutorials reinforce what is taught

Subject knowledge, intellectual and transferable skills are developed in units that require the students to understand the fundamental principles that exist within computer graphics, scripting, programming, mathematics, design, software engineering, art theory, art history, the moving image, craftsmanship and 2D/3D software skills; and then demonstrate their application within a number of other subject areas.

Workshops allow practical and transferable skills to be demonstrated and discussed with students who follow the tutor's teachings whilst sitting by their workstation. This allows us to expose students to a range of animation, design and computer animation tools and techniques. An academic staff member supported by a demonstrator leads each of these sessions.

Seminars and lectures give the tutor and students to discuss and engage in conversation across a variety of areas, allowing students to reflect intelligently and demonstrate subject knowledge and understanding. In lectures and discussions students will challenged to understand and critically analyse forms of the computer graphics production and the moving image in order to develop a critical understanding of their position and to contextualise their personal practice in relation to other practitioners.

Tutorials (both individual and group) allow staff and student to discuss a variety of ideas relevant to their subject area and project work. It is expected that students will look to demonstrate subject expertise, their works application and ability to communicate their findings to their peers. Staff will look to advise, critique and prompt students to think about new areas of investigation or feedback on the execution of the asset being presented.

The NCCA has a bespoke VLE which allows a number of video lectures and notes to be hosted which the student can access at any time and from anywhere. This allows students to learn independently from the lecturer and review material pertinent to their subject area as and when applicable.

Intellectual skills are developed further by student-motivated research, which is facilitated by a research symposium

Team working strategies are introduced in the Group Project with regular group and supervisor meetings.

Visiting practitioners and masterclasses provide the opportunity for staff and students to discover how speakers within a commercial or non-commercial context, go about their work. In most cases, this is a weekly occurrence, with studios, artists and academics joining us on a Friday afternoon to discuss their work practises via design process, case studies, screenings, and portfolio of work, with the opportunity of the audience interacting via Q&A.

Mentoring by both industry and post-doctoral researchers allows our students to receive feedback and advice from subject experts in both the industrial and academic fields of research and development allowing them to prepare for future careers in either industry or academia.

6.1 Personal Development Planning

Personal development planning is embedded within the Framework in a number of ways, although this manifests itself differently depending on which pathway you are studying.

In some cases, students will be encouraged to keep production logs, sketch books, blogs and lab books to monitor progress of projects. In addition to this, students are encouraged to engage with industrial mentor via a number of new teaching innovations such as the nccaReviewTool; which allows students to upload their work onto a VLE and have mentors provide feedback remotely by using a number of mark-up tools within the UI. This is also promotes peer assessment within the cohort – each students being able to leave comments on another student workspace or reply to their tutor/mentor.

Most visual artefacts will also include a production breakdown showing elements the student contributed to, which will contribute to the final student showreel. The showreel is an important part of the student output and is shown at the final degree show with industry present and sent to a number of major companies in advance.

A core ideal of the MSc computer animation is the use of correct software engineering practice, the students are encouraged to apply current industry practice for collaborative and individual working within all their project, using industry standard tools such as version control, redmine project logging and full lifecycle documentation and testing practices.

7. ASSESSMENT STRATEGIES AND METHODS

The student's core technical knowledge and understanding in Computer Animation and Effects is assessed via a number of methods.

Pathway projects, common projects and student-initiated projects provide the student with the opportunity to demonstrate their technical and Intellectual skills in the use of Computer Animation and Effects systems appropriate to their pathway.

Transferable skills are also assessed within the various pathway, common and student-initiated projects. Students are able to demonstrate their abilities in managing and delivering productions on time, problem solving and teamwork skills (specifically within the unit Group Project).

The Research Symposium (within the unit Personal Inquiry) and other written assignments will allow students to demonstrate transferable skills in the completion of reports, in the management of research, and in the communication and presentation of their findings to peers, supervisors and others for assessment (be it oral, written or visual).
Critiques and tutorials of student projects provide both summative and formative assessment strategies, allowing students to benefit from both methods simultaneously.

The students' understanding of the contemporary works in Computer Animation and Effects is assessed through a Research Symposium and written assignments, which demonstrate an appropriate level of knowledge of the broader issues within Computer Animation and Effects practice. Intellectual skills are also assessed through a Research Symposium and written assignments, in which they should demonstrate their ability to engage critical discussion in a clear, concise and reasoned manner.

Intellectual skills are assessed through the various pathway, common, and student-initiated projects the students undertake. This is an opportunity for students to demonstrate their creativity and conceptual skills in the production of original pieces of work. Additionally intellectual skills are assessed through a research symposium (within the unit Personal Inquiry) and written assignments in which they should demonstrate their ability to engage critical discussion in a clear, concise and reasoned manner.

Throughout the year, the on-going nature of assessment, as well as final assessment, will provide both formative and summative feedback to the student; helping them to develop their skills quickly and with confidence

Subject-related skills are assessed through various pathway, common and student-initiated projects undertaken by the students. These provide students with an opportunity to demonstrate their practical abilities in the development and use of various tools, techniques, and theory. Critiques of projects provide formative assessments.

The transferable skills in continual professional development are acquired through the generation of self-led research and self-initiated projects, allowing the student to define areas of professional development interests. These skills are also acquired by the student's contributions to the unit Group Project

Online assessment, self and peer assessment, assessment of artefacts, peer assisted feedback are facilitated via the NCCA Virtual learning Environment which allows work to be appropriately corrected using a number mark-up tools, video recorded critique and a forum for students to discuss and comment on their assignments as well as their peers.

Industry and researcher mentoring allows our students to be mentored by practitioners/academics who are respected subject exerts in their areas. This allows students to receive feedback which is pertinent to its purpose, whilst allowing them to interact with industry professionals and/or academics.

8. PROGRAMME SKILLS MATRICES

8.1 MA 3D Computer Animation Skills Matrix

Matrix table showing the relationship between ILOs for a programme and its constituent units

	Units	Programme Intended Learning Outcomes																		
		A 1	A 2	A 3	A 4	A 5	A 6	B 1	B 2	B 3	B 4	B 5	C 1	C 2	C 3	C 4	D 1	D 2	D 3	D 4
L	Computer Animation Principles	✱	✱	✱	✱		✱				✱	✱	✱	✱		✱	✱		✱	
E	Computer Animation Techniques	✱	✱		✱	✱	✱		✱		✱	✱	✱	✱	✱	✱	✱		✱	✱
V	Computer Animation Principles & Techniques	✱	✱	✱	✱	✱		✱	✱	✱	✱	✱	✱	✱	✱	✱	✱	✱	✱	✱
E	Moving Image Theory	✱	✱	✱		✱		✱	✱	✱		✱	✱		✱		✱		✱	✱
L	Personal Inquiry	✱	✱	✱				✱	✱	✱			✱	✱	✱		✱	✱	✱	
	Group Project		✱	✱		✱	✱		✱		✱	✱		✱	✱	✱	✱	✱	✱	
M	Masters Project (3D Computer Animation)		✱	✱	✱	✱				✱	✱	✱	✱	✱	✱	✱	✱	✱	✱	✱

A - Subject Knowledge and Understanding

1. In the strategic fusion of Art and Science languages appropriate for Computer Animation and Effects praxis.
2. Of design, research and observational techniques.
3. Of the theoretical and practical application of Computer Graphics to their own practise and associated disciplines.
4. Of the tools and techniques applicable to a student of MA3D Computer Animation, including animation, scripting, compositing, modelling, sculpting, character and environment creation, texturing, and rendering.
5. Pertinent to a future career that focusses on the artistic aspects of CG, including environment, character and vehicle artists, animators and technical artists.
6. Of the fundamental skills that underpin the tools and techniques found in MA3D Computer Animation disciplines, such as design methodologies, anatomy, composition and colour theory.

B - Intellectual Skills

1. The Critical contextualization of personal practise.
2. The analysis, synthesis and communication of Computer Animation and Effects praxis.
3. Independently managing and generating critical and effective research.
4. For the production of substantial creative work that demonstrates an appropriate level of originality and mastery of their subject.
5. In the selection and evaluation of correct techniques / tools in the production of assets, underpinned by the effective application of traditional methodologies.

C – Subject-specific/Practical Skills

1. Such that they are proficient in the application of software and tools appropriate to their subject area.
2. To enable the solving of complex animation, character, and environment pipeline issues through the identification and application of correct techniques for CGI production.
3. To enable effective communication with artists in the development and application of animation tools and techniques.
4. In the application of design, anatomy and observational skills to CG projects.

D - Transferable Skills

1. In planning and organisation to produce a project to a given time-scale.
2. To work effectively as a member of a team communicating with peers, supervisors and others.
3. In personally motivated research, independent learning and problem solving ability required for continuing professional development.
4. In the planning and production of critical written reports.

8.2 MA Digital Effects Skills Matrix

Matrix table showing the relationship between ILOs for a programme and its constituent units

	Units	Programme Intended Learning Outcomes																				
		A 1	A 2	A 3	A 4	A 5	A 6	B 1	B 2	B 3	B 4	B 5	C 1	C 2	C 3	C4	C 5	D 1	D 2	D 3	D4	D 5
L	Digital Effects Nucleus	✱	✱		✱	✱	✱		✱	✱	✱	✱	✱		✱		✱	✱				✱
E	Digital Effects Tools		✱		✱	✱	✱		✱		✱	✱	✱	✱				✱	✱		✱	✱
V	Moving Image Theory	✱	✱		✱		✱	✱	✱	✱		✱	✱			✱		✱			✱	
E	Group Project		✱	✱		✱	✱		✱			✱			✱			✱	✱		✱	
L	Digital Effects Techniques	✱	✱	✱	✱	✱	✱	✱	✱	✱	✱	✱	✱		✱	✱	✱	✱		✱	✱	✱
	Personal Inquiry	✱	✱	✱				✱	✱	✱		✱				✱		✱		✱	✱	
M	Masters Project (Digital Effects)	✱	✱	✱	✱	✱	✱	✱	✱	✱	✱	✱	✱	✱	✱	✱	✱	✱	✱	✱	✱	✱

A - Subject Knowledge and Understanding

1. In the strategic fusion of Art and Science languages appropriate for Computer Animation and Effects praxis.
2. Of design, research and observational techniques.
3. Of the theoretical and practical application of Computer Animation and Effects to their own practice and associated disciplines.
4. In the creation of qualitative and original work informed by the forefront of Digital Effects praxis.
5. In the generation and implementation of tools and assets within a Computer Animation and Effects production pipeline.
6. In the fundamentals of Computer Graphics.

C – Subject-specific/Practical Skills

1. In expert use of software and tools appropriate to their discipline.
2. In the contextual mediation of Digital Effects practice through written, spoken or visual artefacts.
3. For the design and implementation of projects conceptually appropriate for Digital Effects.
4. For generating new Computer Animation and Effects techniques and praxis.
5. For demonstrating mastery of Digital Effects.

B - Intellectual Skills

1. For the critical contextualization of personal practise.
2. For the analysis, synthesis and communication of Computer Animation and Effects praxis
3. For independently managing and generating critical and effective research.
4. In the theory and practice of Digital Effects Production and Pipelines.
5. In the clear communication of ideas through a subject-specific medium.

D - Transferable Skills

1. In planning and organisation to produce a project to a given time-scale
2. To work effectively as a team, communicating with peers, supervisors and others
3. In personally motivated research, independent learning and problem solving ability required for continuing professional development.
4. In the planning and production of critical reports, proposals and presentations.
5. In the underlying technology of Digital Effects praxis

8.3 MSc Computer Animation and Visual Effects Skills Matrix

Matrix table showing the relationship between ILOs for a programme and its constituent units

	Units	Programme Intended Learning Outcomes																							
		A 1	A 2	A 3	A 4	A 5	A 6	A7	B 1	B 2	B 3	B 4	B 5	B 6	B7	C 1	C 2	C 3	C4	C 5	D 1	D 2	D 3	D4	D 5
L	Simulation and Rendering		✱	✱			✱				✱	✱	✱		✱	✱		✱			✱		✱	✱	✱
E	Animation Software Engineering			✱	✱	✱	✱	✱	✱				✱	✱	✱	✱	✱	✱	✱		✱			✱	
V	CGI Tools	✱	✱		✱	✱			✱				✱				✱	✱	✱	✱					
E	CGI Techniques				✱	✱	✱	✱		✱			✱	✱			✱	✱					✱	✱	
L	Personal Inquiry	✱	✱	✱						✱	✱			✱							✱		✱		✱
	Group Project				✱	✱						✱	✱			✱	✱		✱	✱	✱	✱	✱		✱
M	Masters Project (Computer Animation and Visual Effects)	✱		✱		✱	✱	✱	✱		✱	✱	✱	✱	✱	✱		✱	✱	✱	✱	✱	✱	✱	✱

A - Subject Knowledge and Understanding

1. In the strategic fusion of Art and Science languages appropriate for Computer Animation and Effects praxis.
2. Of design, research and observational techniques.
3. Of the theoretical and practical application of Computer Graphics to their own practise and associated disciplines.
4. Of the fundamentals of Computer Graphics.
5. In articulating a comprehensive understanding of the techniques applicable to their own practice.
6. Of Mathematics and algorithms for computer graphics
7. Of Software Engineering techniques for computer generated imagery, Technical Direction and pipeline.

B - Intellectual Skills

1. The Critical contextualization of personal practise.
2. The analysis, synthesis and communication of Computer Animation and Effects praxis.
3. Independently managing and generating critical and effective research.
4. For production of a substantial creative work that demonstrates an appropriate level of originality and mastery of the subject.
5. In selection and evaluation of correct techniques / tools in the production of an asset.
6. In synthesis of current research and underlying theory for animation tools and software engineering.
7. To autonomously identify and solve CGI and or Games problems by the application of software engineering.

C – Subject-specific/Practical Skills

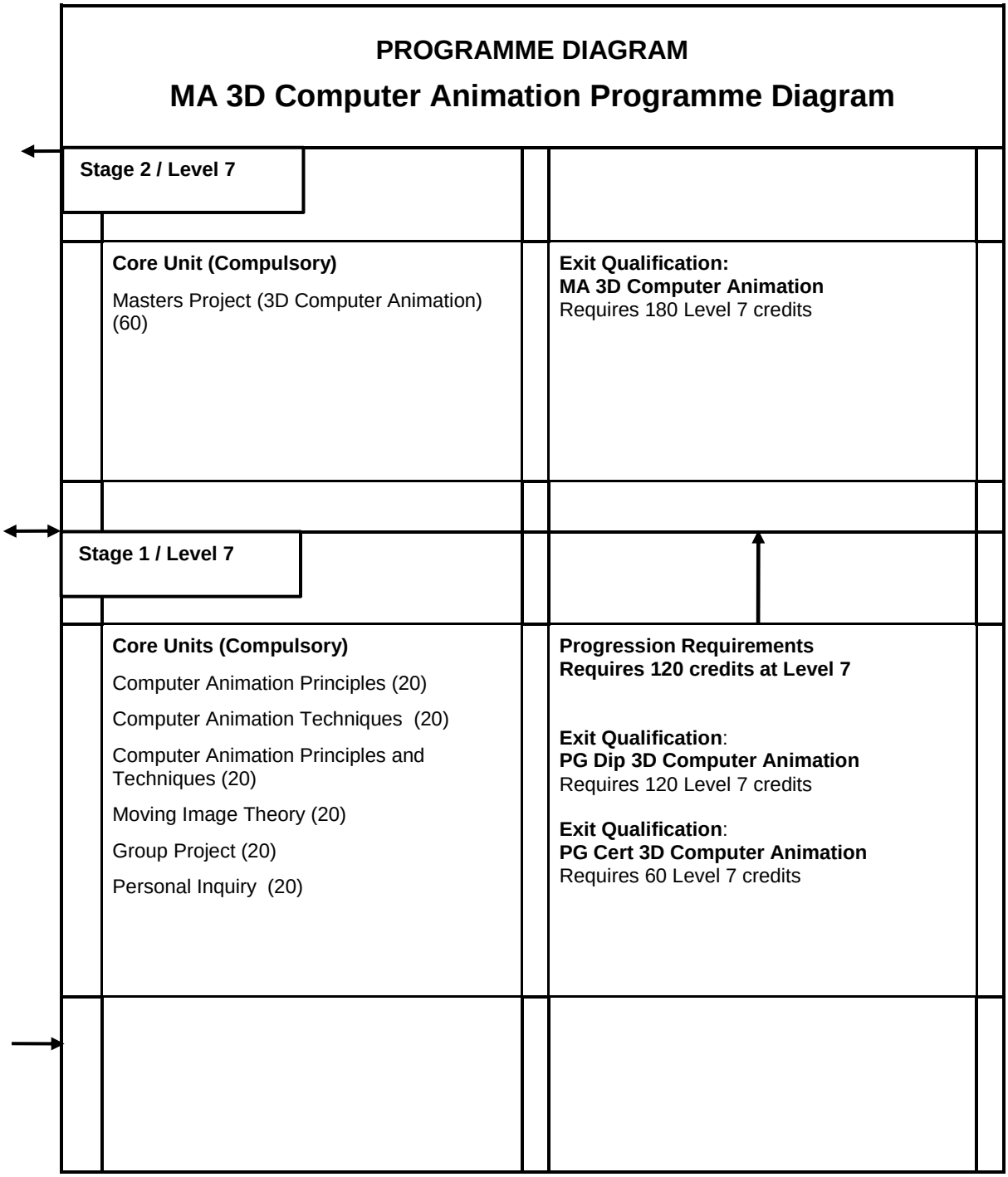
1. In proficiency in the application of software engineering practices to the whole lifecycle of an animation or games project .
2. For a mastery of computer programming languages and application programming interfaces for CGI / Games production.
3. For solving complex animation pipeline issues.
4. To identify and apply the correct techniques for CGI production.
5. To Communicate effectively with artists in the development and application of animation tools and techniques.

D - Transferable Skills

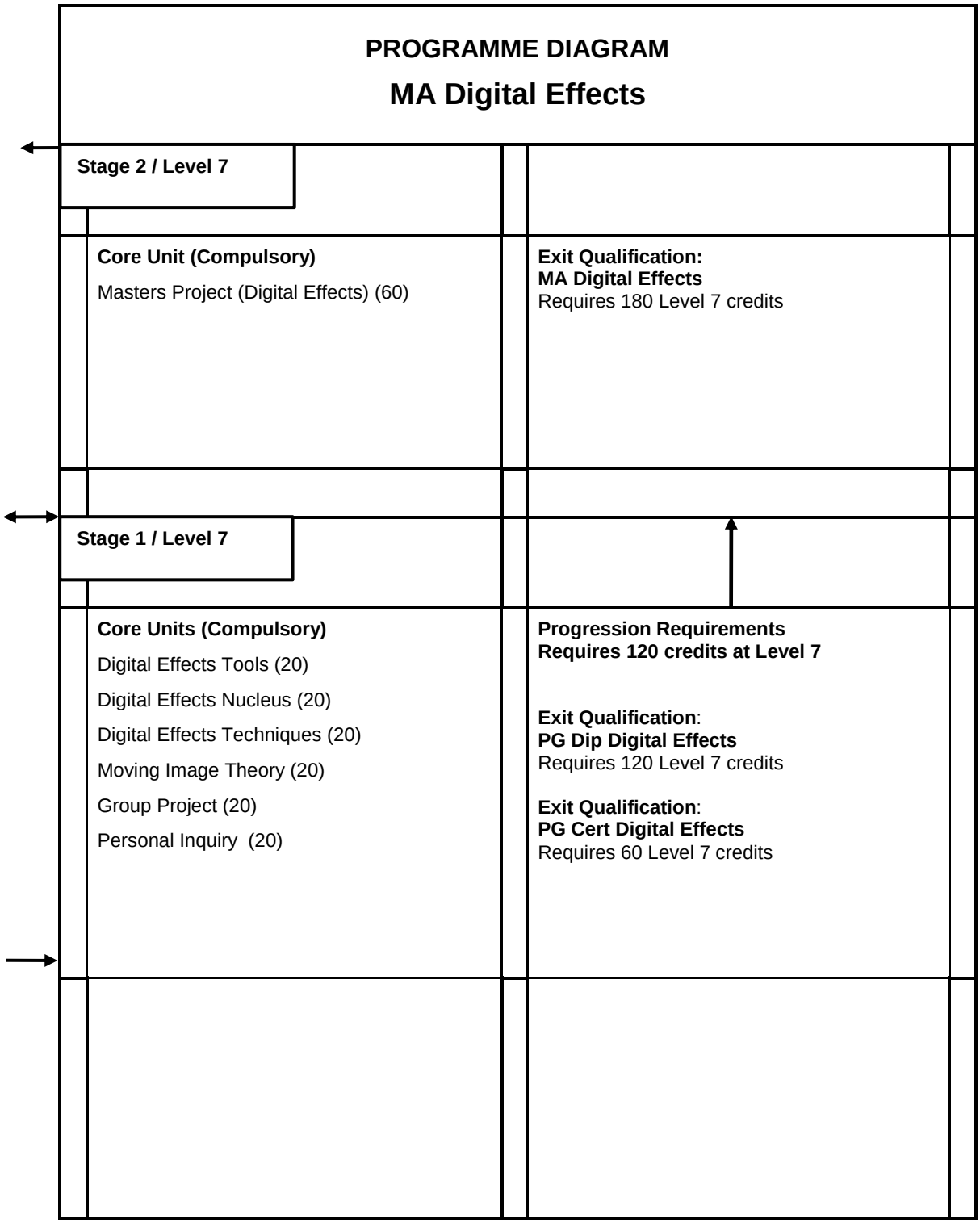
1. In planning and organisation to produce a project to a given time-scale.
2. To work effectively as a member of a team communicating with peers, supervisors and others.
3. In personally motivated research, independent learning and problem solving ability required for continuing professional development.
4. In planning and production of critical written reports.
5. In the ability to communicate with peers, supervisors and others.

9. PROGRAMME DIAGRAMS

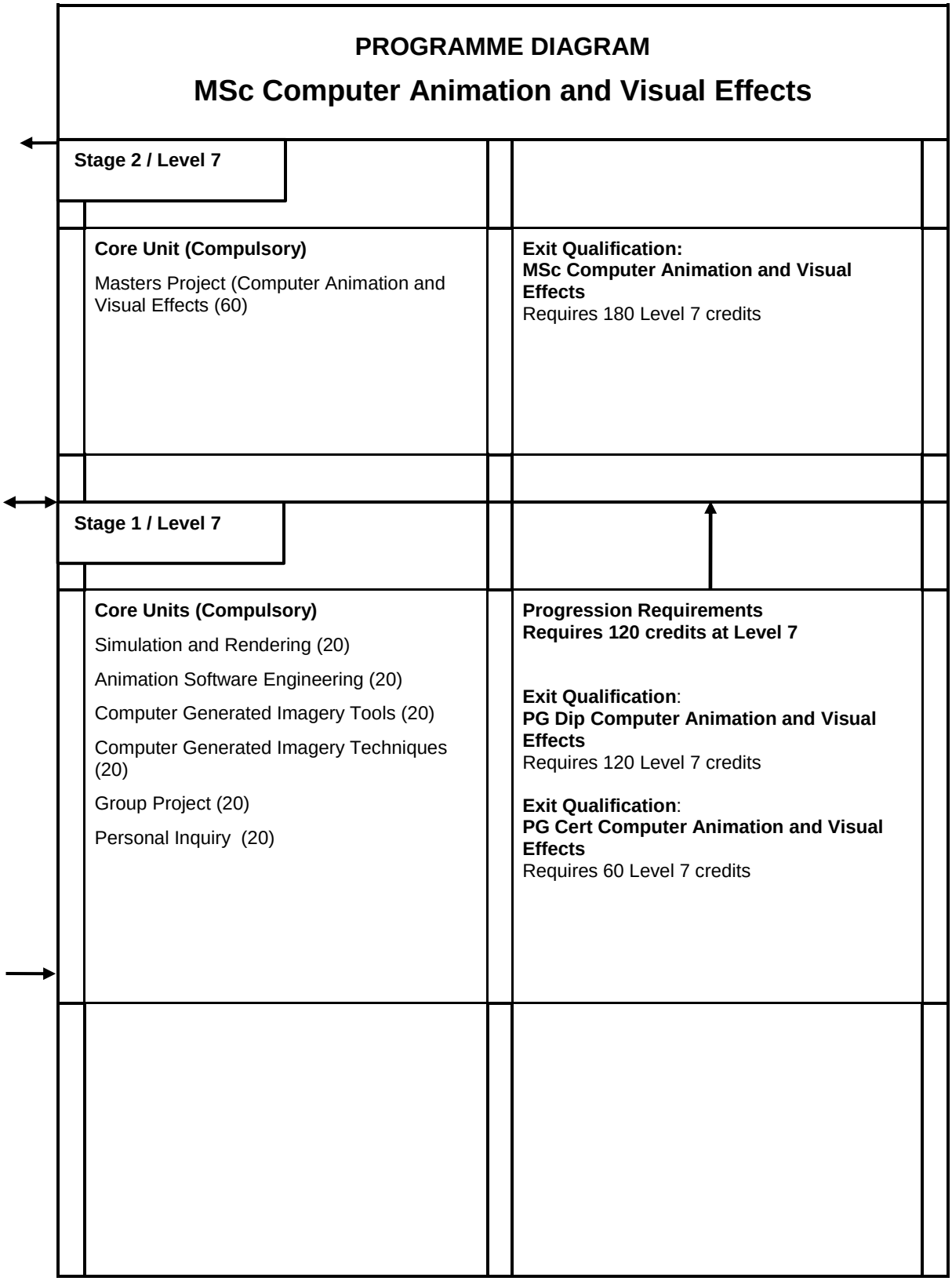
9.1 MA 3D Computer Animation Programme Diagram



9.2 MA Digital Effects Programme Diagram



9.3 MSc Computer Animation and Visual Effects Programme Diagram



10. ADMISSION REGULATIONS

The regulations for this programme are the University's Standard Postgraduate Admission Regulations with the following amendments:

Students admitted to the Framework must satisfy the entry requirements described below for the chosen Pathway.

10.1 MA 3D Computer Animation, MA Digital Effects

The normal minimum qualifications entitling a student to be considered for admission to the beginning of the Framework are as follows:

- Bachelors Honours degree, 2:1 or above or equivalent from a UK university, or comparable institution in an art, media or design related field,

or

- A professional qualification or diploma deemed to be equivalent to an Honours degree in an art, media or design field

or

- Industrial experience deemed to be equivalent to an Honours degree in one of the recommended disciplines. Candidates in this category will have to comply with the University's established procedures for non-standard entrants.

- Evidence of visual literacy expected of a candidate with the above qualifications.

- Evidence of numeracy sufficient to undertake the coursework involving fundamental concepts in computer animation / digital effects

- For applicants for whom English is not their first language, there is a requirement of IELTS (academic) 6.5 or equivalent. Applicants must achieve an overall score of 6.5, with at least 6.5 for Writing and 6.0 in the other three components. The requirement for TOEFL is an Internet based score of 90 with 22 in each element, a Computer based score of 250 with 23 in each element and an essay rating of 4 or a Paper based total of 600 will also be considered.

Candidates are expected to present a digital portfolio of work with their initial application. Successful candidates will then be called for an interview and expected to bring a full portfolio including both digital and traditional work, (overseas students may be interviewed on the phone but must send examples of work).

Exceptional well-qualified candidates from other disciplines may be considered at the discretion of the interviewing panel.

10.2 MSc Computer Animation and Visual Effects

The normal minimum qualifications entitling a student to be considered for admission to the beginning of the course are as follows:

- Bachelors Honours degree, 2:1 or above or equivalent from a UK university, or comparable institution in Computing, science, engineering, Maths, Physics or a technology related field,

or

- A professional qualification or diploma deemed to be equivalent to an Honours degree in a science, engineering or technology field

or

- Industrial experience deemed to be equivalent to an Honours degree in one of the recommended disciplines. Candidates in this category will have to comply with the University's established procedures for non-standard entrants.

- A level of understanding of computer programming and algorithms.

- For applicants for whom English is not their first language, there is a requirement of IELTS (academic) 6.5 or equivalent. Applicants must achieve an overall score of 6.5, with at least 6.5 for Writing and 6.0 in the other three components. The requirement for TOEFL is an Internet based score of 90 with 22 in each element, a Computer based score of 250 with 23 in each element and an essay rating of 4 or a Paper based total of 600 will also be considered.

- Where appropriate candidates may then be called for an interview (overseas students may be interviewed on the phone).

- Applicants may be allowed to enter the MSc Computer Animation and Visual Effects programme with advanced standing, on the basis of the successful completion of years 1 of MSc Software Engineering with an average GPA of 7 out of 10 and IELTS (Academic) 6.5 or equivalent with minimum 5.5 in each of the four skills components through a formal Recognition arrangement with University of Electronic Science and Technology of China (UESTC).

10.3 Kaplan International College Articulation

Applicants from Kaplan International College programmes which have approved articulation routes must meet the minimum entry requirements in terms of course average and English requirements as stipulated by the Media School at Bournemouth University.

Exceptional well-qualified candidates from other disciplines may be considered at the discretion of the interviewing panel.

11. ASSESSMENT REGULATIONS

The regulations for this programme are the University's Standard Postgraduate Assessment Regulations.

12. PROGRAMME PROFILES

12.1 MA 3D Computer Animation Programme Profile

Originating Institution: Bournemouth University School: The Media School Partner: N/A	Place of Delivery: BU Language of delivery (*if not English*): Programme HECoS Codes: 100363, 100057	Framework Title (in full): **PG Computer Animation and Effects Framework** Programme Award and Title: **MA 3D Computer Animation** Interim Award and Titles & required credits: PG Cert 3D Computer Animation = 60 credits PG Dip 3D Computer Animation = 120 credits MA 3D Computer Animation = 180 credits	Mode(s) of study [1]: FT Expected Length of study [2]: 1 year BU Credit Structure & ECTS [3]: PgCert Level 7 = 60 (30 ECTS) PgDip Level 7 = 120 (60 ECTS) MA Level 7 = 180 (90 ECTS)

Unit identification		Cost Centre(s) [4]						Unit Details					Assessment Regs [7]: SR		
Unit version no.	Unit name	HECoS Code	CC 1	%	HECoS Code	CC2	%	Prog year [5] FT	Prog year [5] PT	Core / option	No of credits [6]	Level	Assessment [8] Element Weightings [9]		
													Exam 1	C/Work 1	C/Work 2
2	Computer Animation Principles	100048	121	50	100057	121	50	1		Core	20	7		50%	50%
2	Computer Animation Techniques	100048	121	50	100057	121	50	1		Core	20	7		60%	40%
2	Computer Animation Principles and Techniques	100048	121	50	100057	121	50	1		Core	20	7		100%	
1	Moving Image Theory	100048	121	50	100057	121	50	1		Core	20	7		100%	
2	Personal Inquiry	100636	121	50	100057	121	50	1		Core	20	7		100%	
2	Group Project	100048	121	60	100057	121	40	1		Core	20	7		100%	
1	Masters Project (3D Computer Animation)	100048	121	70	100057	121	30	1		Core	60	7		100%	

Effective from [10] Prog Year / Month / Year			Contact in School:	Date approved [11]: October 2016	Programme Specification version no. [12]: 2.2-0919	Placement [13]: no placement
Yr. 1	Sept	2017				
Yr. 2			Name of Professional, Statutory or Regulatory Body (if appropriate) [14]: Creative Skillset			
Yr. 3						

12.2 MA Digital Effects Programme Profile

Originating Institution: Bournemouth University School: The Media School Partner: N/A	Place of Delivery: BU Language of delivery (*if not English*): Programme HECoS Code 100717	Framework Title (in full): **PG Computer Animation and Effects Framework** Programme Award and Title: **MA Digital Effects** Interim Award and Titles & required credits: PG Cert Digital Effects = 60 credits PG Dip Digital Effects = 120 credits MA Digital Effects = 180 credits	Mode(s) of study [1]: FT Expected Length of study [2]: 1 year BU Credit Structure & ECTS [3]: PgCert Level7 = 60 (30 ECTS) PgDip Level 7= 120 (60 ECTS) MA Level 7 = 180 (90 ECTS)

Unit identification		Cost Centre(s) [4]						Unit Details					Assessment Regs [7]: SR		
Unit version no.	Unit name	HECOSSubject Code	CC 1	%	HECOSSubject Code	CC2	%	Prog year [5] FT	Prog year [5] PT	Core / option	No of credits [6]	Level	Assessment [8] Element Weightings [9]		
													Exam 1	C/Work 1	C/Work 2
3	Digital Effects Tools	100441	121	50	100057	121	50	1		Core	20	7		50%	50%
2	Digital Effects Nucleus	100717	121	50	100716	121	50	1		Core	20	7		100%	
2	Digital Effects Techniques	100717	121	50	100057	121	50	1		Core	20	7		100%	
1	Moving Image Theory	100048	121	50	100714	121	50	1		Core	20	7		100%	
2	Personal Inquiry	100636	121	50	100057	121	50	1		Core	20	7		100%	
2	Group Project	100048	121	60	100057	121	40	1		Core	20	7		100%	
	Masters Project (Digital Effects)	100048			100057			1		Core	60	7		10%	90%

Effective from [10] Prog Year / Month / Year			Contact in School:	Date approved [11]: October 2016	Programme Specification version no. [12]: 2.2-0919	Placement [13]: no placement
Yr. 1	Sept	2017				
Yr. 2			Name of Professional, Statutory or Regulatory Body (if appropriate) [14]: Creative Skillset			
Yr. 3						

12.3 MSc Computer Animation and Visual Effects Programme Profile

Originating Institution: Bournemouth University School: The Media School Partner: N/A	Place of Delivery: BU Language of delivery (*if not English*): Programme HECOS code: 100363	Framework Title (in full): **PG Computer Animation and Effects Framework** Programme Award and Title: **MSc Computer Animation and Visual Effects** Interim Award and Titles & required credits: PG Cert Computer Animation and Visual Effects = 60 credits PG Dip Computer Animation and Visual Effects = 120 credits MSc Computer Animation and Visual Effects = 180 credits	Mode(s) of study [1]: FT Expected Length of study [2]: 1 year BU Credit Structure & ECTS [3]: PgCert Level 7= 60 (30 ECTS) PgDip Level 7 = 120 (60 ECTS) MA Level 7 = 180 (90 ECTS)

Unit identification		Cost Centre(s) [4]									Unit Details					Assessment Regs [7]: SR		
Unit version no.	Unit name	HECOS Subject Code	CC1	%	HECOS Subject Code	CC2	%	HECOS Subject Code	CC3	%	Prog year [5] FT	Prog year [5] PT	Core / option	No of credits [6]	Level	Assessment [8] Element Weightings [9]		
																Exam 1	C/Work 1	C/Work 2
1	Animation Software Engineering	100960	121	80	100753	121	20	100363	121	20	1		Core	20	7		100%	
2	Computer Generated Imagery Tools	101400	121	50	100162	121	50				1		Core	20	7		50%	50%
2	Computer Generated Imagery Techniques	100363	121	60	100400	121	20	100960	121	20	1		Core	20	7		60%	40%
1	Simulation and Rendering	100363	121	60	100960	121	40				1		Core	20	7		50%	50%
2	Personal Inquiry	100636	121	50	100057	121	50				1		Core	20	7		100%	
2	Group Project	100048	121	60	100057	121	40				1		Core	20	7		100%	
1	Masters Project (Computer Animation & Visual Effects)	100048	121	70	100057	121	30				1		Core	60	7		75%	25%

Effective from [10] Prog Year / Month / Year			Contact in School:	Date approved [11]: October 2016	Programme Specification version no. [12]: 2.2-0916	Placement [13]: no placement
Yr. 1	Sept	2017				
Yr. 2			Name of Professional, Statutory or Regulatory Body (if appropriate) [14]: Creative Skillset			
Yr. 3						