

**Faculty of Engineering and Environment  
Department of Computer Science and  
Digital Technologies**

**BSc (Hons) Computer Animation and VFX  
Programme Handbook 2015 - 2016**

## Contents

1	Welcome from the Programme Leader .....	3
2	Department Introduction.....	3
3	About this handbook.....	3
4	Who's Who and Communication? .....	4
4.1	Who to go to for help.....	4
	Student Support Team .....	4
	Programme Leader: Hubert Shum .....	4
	Programme Administrator .....	4
	Year Tutors .....	4
	Module Tutors.....	5
4.2	Communication.....	5
	Contacting Your Programme Leader .....	5
	Email.....	5
	eLearning Portal .....	5
	Plasma TV Screens.....	5
5	Programme Information for BSc (Honours) Computer Animation and VFX.....	6
5.1	Programme Aims.....	6
5.2	Programme Learning Outcomes .....	7
5.3	Programme Structure.....	9
5.4	Module Information .....	10
5.5	Learning Teaching and Assessment Strategy .....	10
5.6	Feedback .....	10
6	External Examiner Information .....	11
7	Placement Opportunities .....	11
8	Programme and Assessment Schedule .....	11
8.1	Course Dates 2014/2015 .....	11
8.2	Assessment Schedule .....	12
9	Resources and Laboratories .....	12
10	Professional Bodies .....	12

## 1 Welcome from the Programme Leader

Welcome to the BSc (Hons) Computer Animation and Visual Effects programme.

As your program leader, my primary objective is to give you the best learning experience during your study. Our teaching team members including both academic scholars and practitioners from the industry will provide you with theoretical and practical knowledge in the field, such that you can pursue your ambition.

This year, the program has a record raise in applications, indicating the reputation we have gained in the Northeast area and around the world. The university has agreed to invest more than £120,000 into the program next year for a number of improvement projects, including purchasing industrial level computers for the laboratory B2, setting up a new 3D and Motion Capture laboratory in the Pandon Building, refurbishing the Production Studio B4, as well as setting up a new inertia-based motion capture system.

As always, I hope you enjoy the new academic year. If you have any difficulty, the teaching team is here to help.

Dr. Hubert Shum

Programme Leader of BSc (Hons) Computer Animation and Visual Effects

## 2 Department Introduction

The Department of Computer Science and Digital Technologies at Northumbria University encompasses all of our work in games, robotics, mobile applications, animation and digital visual effects, computer forensics and ethical hacking, network technology and website design. Our students, staff and researchers develop and refine cutting edge technologies that impact on the way we all live our lives. They work cross-discipline, exploring the way that technology can impact on health, travel, security intelligence, artificial intelligence and many other sectors.

## 3 About this handbook

This handbook is designed to provide a guide to your programme of study at Northumbria. It should be read alongside the University and Faculty Student Handbooks which contain more general information about being a student at Northumbria within the Faculty of Engineering and Environment

It does not provide all of the information that you will need although it attempts to tell you where to find most of that information. The latest version of much of the further information that you need is to be found in a comprehensive and definitive form on the Northumbria website. More information can be found via the Student Hub link on the University home page.

**Please keep this handbook somewhere safe – you may need to refer to it.**

## 4 Who's Who and Communication?

### 4.1 Who to go to for help

You will meet a broad range of academic, administrative and technical staff throughout your studies. The majority of staff will be drawn from the various subject areas within the Faculty. However, we also draw upon subject specialisms outside the Faculty and external consultants, industrialists and advisors.

Staff from the faculty and from the wider university (such as the University Library, IT Services and Student Support and Wellbeing) are here to help you get the most out of your Programme. In this section, we introduce you to some of the key people who will support you at Faculty and subject area level.

#### Student Support Team

The Student Support Team is available to assist all students requiring information and/or advice. The team is located in B201 Ellison Building.

Opening times: Monday – Thursday 8.30 – 17.00 hours Friday 8.30 – 16.30 hours

Email: [ee.studentsupport@northumbria.ac.uk](mailto:ee.studentsupport@northumbria.ac.uk)

Telephone: 0191 227 4722

#### Programme Leader: Dr. Hubert Shum

Your Programme Leader is the academic leader for your Programme and is responsible for managing the programme on a day to day basis, working with other Faculty and University staff – academic, administrative and technical – as needed. Your Programme Leader is committed to helping you get the most out of the Programme and, where relevant, will liaise with your Module Tutors and other relevant staff to make sure that they are aware of your needs and of how you are doing.

Office Location: Pandon building room 237A (Second floor)

Email: [hubert.shum@northumbria.ac.uk](mailto:hubert.shum@northumbria.ac.uk)

Telephone: 0191 243 7607

#### Programme Administrator

Your Programme Administrator (Andrew Cox) holds all the key information regarding your programme. This is the person who manages such processes as enrolment, option choice, day to day correspondence, confirmation of attendance letters, marks entry, etc. They can be contacted via the Pandon Faculty Office. [a.cox@northumbria.ac.uk](mailto:a.cox@northumbria.ac.uk) 0191 227 3601

#### Year Tutors

Your Year Tutor's are members of the academic staff and are responsible for students on a particular year of the course. They work closely with the programme leader and programme administrator to support you on your programme. Each year of the programme has a year tutor:

##### First year tutor: Lynne Conniss

Office Location: Pandon building room 241 (Second floor)

Email: [lynne.conniss@northumbria.ac.uk](mailto:lynne.conniss@northumbria.ac.uk)

Telephone: 0191 227 4434

**Second year tutor: Dr. Paul Vickers**

Office Location: Pandon building room 214 (Second floor)

Email: [paul.vickers@northumbria.ac.uk](mailto:paul.vickers@northumbria.ac.uk)

Telephone: 0191 227 7614

**Final year tutor: Lynne Conniss**

Office Location: Pandon building room 241 (Second floor)

Email: [lynne.conniss@northumbria.ac.uk](mailto:lynne.conniss@northumbria.ac.uk)

Telephone: 0191 227 4434

PLEASE NOTE: *IT IS REALLY IMPORTANT THAT IF YOU HAVE AN ISSUE YOU CONTACT US AS SOON AS POSSIBLE – WE ARE HERE TO HELP*

**Module Tutors**

For each module of study, you will have a designated Module Tutor. The Module Tutor is responsible for the organization of the module and supporting your learning and assessment on that module.

## 4.2 Communication

**Contacting Your Programme Leader**

Academic staff may teach on many modules and programmes. In addition, they may have other roles and responsibilities that take them from their office. Thus, it is advisable to make an appointment if you wish to see them. You can do this via email or you can try to see if they are in their office (however, it is generally better to use email where possible). Occasionally you may be able to have an immediate appointment, but don't be disappointed if you are asked to return at a mutually convenient time. Please contact staff to cancel if you are unable to make the arranged appointment.

**Email**

Email is used extensively throughout the University and is a very effective method of communication between students and staff. You will be automatically allocated an email address by the University once you have enrolled. Do remember that the Northumbria email address is the one that should be used when contacting University and Faculty staff. It is also the one that is used by staff to make contact with you, so do make sure that you check it regularly, particularly if you also use a personal email account. Please be aware that staff may not reply to your email immediately due to their other duties and activities.

**eLearning Portal**

The eLearning Portal (eLP) is a very important resource for students. You will find specific information related to the modules you are taking, such as copies of lecture and seminar handouts, assignment briefings, instructions, and announcements. Your Programme Leader may use the eLP to pass on information concerning programme matters. It is therefore important that you check the eLP regularly – at least daily – for new announcements and new material.

**Plasma TV Screens**

The faculty has a number of plasma screens in the Pandon and Ellison buildings. These are also used to display announcements, events and opportunities such as visits from potential placement providers.

## 5 Programme Information for BSc (Honours) Computer Animation and VFX

Here you will find specific information on your programme of study. There is a national requirement that all university programmes of study have a publicly available Programme Specification and this section is based on that programme specification. The full and definitive version of the programme specification can be found at <http://www.northumbria.ac.uk/programmespecs/>.

The first year modules on the programme introduce some of the components within creative media production. This includes animation and VFX, computer graphics, digital media design and technical production, computer games design, visual communications, web design, digital audio and video development. From the second year onwards in this programme, specialist modules are introduced which concentrate on developing skills in digital special effects, 3D modelling, 2D animation, multimedia programming and sound production. The structure diagram in section 4.3 shows the modules that will be taken across the three taught years.

### 5.1 Programme Aims

The primary aim of this programme is to provide a broad, general education in the theory and practice of Computer Animation and VFX. It would aim to produce graduates highly skilled and professional in developing and managing Computer Animation and VFX solutions, knowledgeable of current and emergent technologies, and with business awareness. Typically, graduates from the programme would be expected to work in organisations developing solutions to Animation or VFX problems, but would also be suited to employment in the general IT field. Additionally, the programme will aim to develop students' critical abilities and general problem solving skills and lay a foundation for continuing education and self-improvement. The programme will also provide embedded opportunities for ongoing PDP and portfolio development.

#### **Students graduating from this programme should be able to:**

- Identify the need for, elicit the requirements for, specify, design and implement Computer Animation and VFX content in a range of environments and for a range of problems/needs.
- Successfully exploit a range of methods and tools in developing workable solutions for creating complex Computer Animation and VFX content using up-to-date technologies.
- Critically appraise the suitability of current and emerging Computer Animation and VFX technologies to support a variety of domains.
- Articulate and synthesise their knowledge and understanding, attributes and skills in effective ways in the contexts of creative practice.
- Plan, manage and undertake a substantial piece of individual project work.
- Act in a professional and ethical manner in the development and use of Computer Animation and VFX content.
- Work with users in the development and operation of Computer Animation and VFX content.
- Plan and manage the development of and use of Computer Animation and VFX content.
- Use and evaluate a variety of technology, commercial software, tools and techniques relevant to Computer Animation and VFX content.
- Communicate effectively (in writing and orally) at the appropriate business and technical level with users, management, customers and technical specialists.
- Work successfully in teams.

## 5.2 Programme Learning Outcomes

The levels within which the outcomes are primarily, but not exclusively, achieved are shown in brackets.

### a) Knowledge and Understanding

On completing the programme we want students to know and understand:

- A1:** The business need for Computer Animation and Digital VFX content, its nature and evolution.
- A2:** Core Computer Animation and Digital VFX technologies, including development tools and techniques.
- A3:** Technical, professional and business issues surrounding the development, operation and maintenance of Computer Animation and Digital VFX content.
- A4:** Techniques and tools for the specification of requirements, analysis, design and implementation of Computer Animation and Digital VFX content.
- A5:** Supporting and current techniques and technologies such as: video, sound, graphics, animation, multimedia and digital entertainment applications, special VFX, storage and retrieval.
- A6:** The creative, professional, ethical and legal issues involved in the development and operation of Computer Animation and Digital VFX content.

### b) Intellectual Skills

The most important intellectual skills developed on the programme are to:

- B1:** Select, plan and manage individual and team-based development projects.
- B2:** Discuss and critically evaluate available development tools, methods, and technologies and associated user and professional issues.
- B3:** Identify a problem and then select and apply effective methods, tools and technology for its solution.
- B4:** Select the most appropriate methods, tools and technology for the solution to a given problem.
- B5:** Analyse a simple problem domain and build an effective solution to given problems in that domain.
- B6:** Integrate and evaluate information and data from a variety of sources.
- B7:** Demonstrate and exercise independence of mind and thought.
- B8:** Reflect on the professional and ethical issues surrounding Computer Animation and Digital VFX content development and use.

c) Practical Skills

The most useful practical skills, techniques and capabilities developed are:

**C1:** Analyse, design, build and test solutions to increasingly complex and varied Computer Animation and Digital SFX content domains.

**C2:** Use a range of tools, techniques, knowledge and technologies in the development of Computer Animation and Digital VFX content.

**C3:** Use appropriate techniques and tools to support effective management of the development and operation of Computer Animation and Digital VFX content.

**C4:** Manage the development of Computer Animation and Digital VFX content and evaluate the effectiveness of the content and development process.

**C5:** Design and build high quality Computer Animation and Digital VFX content.

d) Transferable/Key Skills

The student will be able to:

**D1:** Communicate information, ideas, problems and their solution, in both written and oral form.

**D2:** Manage their time and resources efficiently and effectively.

**D3:** Work effectively both individually and as a member of a team.

**D4:** Exercise initiative and personal responsibility.

**D5:** Learn independently using a diverse range of resources.

**D6:** Evaluate and criticise their own learning experience.

## 5.3 Programme Structure

Year 1					
EN0413 Introduction to Animation and VFX	CM0425 Digital Audio and Video	CM0426 Digital Media Design and Technical Production	CM0439 Computer Graphics and Visual Communication	CM0481 Introduction to Programming	
Year 2					
CM0556 Sound Design	CM0559 Digital Video SFX	CM0560 2D-Computer Graphics and Animation	CM0563 3D-Computer Modelling and Animation	EN0569 Integrative Creative Media Project	CM0570 Multimedia Programming
Year 3					
Placement Year					
Year 4					
CM0651 Creative Media Technology Project	CM0641 Advanced Animation and Graphics (Technology and Techniques)	CM0643 Advanced Digital SFX	EN0611 Creative Media Technology Portfolio Development	Option	

## 5.4 Module Information

A full and detailed breakdown of the modules on the programme can be found at <https://www.northumbria.ac.uk/study-at-northumbria/courses/computer-animation-and-vfx-ft-uuscav1/#modules>

## 5.5 Learning Teaching and Assessment Strategy

The learning, teaching and assessment methods adopted on the programme provide wide diversity, incorporating the best techniques to fit both the particular subject under study and the depth of learning required at undergraduate level. In this way the programme supports the University's aim to promote "challenging and innovative teaching and learning which empowers the active learner".

The programme learning outcomes are aligned with module learning outcomes and the learning methods applied to address the module learning outcomes are specified in module descriptors. At the start of each semester all students are provided with full details of the learning, teaching and assessment styles for each module. Students will be encouraged to develop independent learning skills and techniques in Level 4 and these will be used increasingly in levels 5 and 6. Students will be supported in their skills development in each module. At levels 5 and 6 students are increasingly expected to incorporate critical analysis and critical evaluation into their learning. Students will be supported in developing these skills throughout the programme.

The technology practice-based nature of the subject matter of this programme means that the traditional lecture plus seminar delivery model is relevant for only on a minority of modules. For many modules, the approach adopted will be based on focusing teaching around two-hour laboratory-based 'lectorials' where key information is delivered in short 10-15 minute presentations followed by hands-on practical exploration of the topic at hand. This will be supported by a strong programme of directed reading and reflection designed to ensure that the higher-level critical analysis of the subject is not neglected. In addition, and especially at levels 5 and 6, some 'lectorial' modules are supported by traditional lectures in which more theoretical, discursive, comparative, or academic material can be presented. The internet and the University and School web resources, including Blackboard, are used to support lectures, seminars, computing laboratory and classroom sessions and private study.

Assessment covers a range of activities including coursework assignment and traditional examinations. For modules where a written paper examination is inappropriate but some unseen time-constrained task is considered necessary Time Constrained Tests (TCT) will be used. In a TCT students are given practical problems to solve and are required to design and implement a solution to that problem in the lab and to submit their solution at the end of the test period.

The laboratory-focused nature of the learning activities means that formative feedback can be provided continually throughout a module's delivery.

## 5.6 Feedback

Formative assessment (this is not marked but rather is designed to help you improve your work) and feedback is incorporated into modules wherever appropriate and students are encouraged to participate in formative activities through linking those activities to PDPs and using the formative activities to develop the skills, techniques and expectations of summative assessment. Summative assessment methods include assignments, exams, technical reports, case study analyses, presentations, portfolio and project work.

Student Representatives are elected in Induction Week (where possible). Being a Student Representative is a responsible task and one that is important, not only to help the University operate effectively, but also to make sure that you and your fellow students are getting the best experience possible whilst at Northumbria. The students in your Year Group elect the Student Representatives for the coming academic year. The Reps' commitment will be to gather 'issues and ideas' from fellow students and feed these back each semester at Staff Student Liaison Committee (SSLC) meetings with the Year Tutors and Programme Leader and at Programme Committee Meetings with the Programme Management Team. The results of such discussion between the Reps and programme team may then be auctioned as appropriate, and results fed back via published minutes and through the Reps.

The main role of the Student Rep is to represent the students in the School on programme related matters at the programme committees, however their role need not be limited to participation in programme committees, nor need they wait for the committee to meet to act on any issues affecting the student body. They can represent students at various meetings in the Students Union, including the Student Council as well as the annual General Meeting.

## 6 External Examiner Information

The external examiner for this programme is Mr Damien Markey from the University of Bolton.

## 7 Placement Opportunities

You will have the opportunity to undertake a year-long paid placement in their third year of your study. A dedicated Placement team based in the Faculty is there to offer support in all stages of the placements process. Both the placement team and the University Careers Service can help with CV preparation and checking as well as interview techniques.

## 8 Programme and Assessment Schedule

### 8.1 Course Dates 2015/2016

<b>Semester One</b>		
Enrolment	Thursday 10 September to Friday 2 October 2015	3 weeks and 2 days
Welcome/Induction Week	Monday 14 September to Friday 18 September 2015	1 week
Teaching Weeks	Monday 21 September to Friday 11 December 2015	12 weeks
December Congregation for courses completing after June Examination Boards	Monday 7 & Tuesday 8 December 2015	2 days

<b>Winter Break</b>	Monday 14 December 2015 to Friday 1 January 2016	3 weeks
Assessment Weeks	Monday 4 January to Friday 15 January 2016	2 weeks
<b>Semester Two</b>		
Welcome/Induction week	Monday 11 January to Friday 15 January 2016	1 week
Teaching Weeks	Monday 18 January to Friday 18 March 2016	9 weeks
<b>Spring Break</b>	Monday 21 March to Friday 8 April 2016	3 weeks
Teaching Weeks	Monday 11 April to Friday 29 April 2016	3 weeks
Assessment	Tuesday 3 May to Friday 20 May 2016	3 weeks
Final year results published	Friday 24 June 2016	1 day
Summer Award Congregations	Thursday 7 July to Wednesday 13 July 2016	1 week
Reassessment Period	Monday 22 August to Friday 26 August 2016	1 week

Students must note the above dates and ensure their availability to fulfil all academic requirements for their programme of study.

Source: Course Dates 2015/2016 –

<https://www.northumbria.ac.uk/sd/central/ar/spa/dates/coursedates2015/?view=Standard>

## 8.2 Assessment Schedule

The assessment schedule for this programme will be provided via Blackboard. This should include when assessments will be given out and submission dates.

To help your study during the academic year it is **essential** that you make a note of **all** assessment submissions dates to help you plan your workload.

## **9 Resources and Laboratories**

The programme benefits from two dedicated Labs PB2 which is the VFX and graphics lab and B4 which is the VFX studio. Both labs are based in the Pandon building. These facilities are dedicated to your programme and are on a swipe card access only.

It is important that you take care of these facilities. Food and drink is not allowed on the benches. Please treat your working/studying environment with respect.

The Labs are equipped with high tech equipment to support your studies in Computer Animation and VFX . The studio environment is available to be booked by an on-line booking system and can only be booked after you have addressed health and safety procedures.

## **10 Professional Bodies**

The programme has accreditation from the British Computer Society (BCS).

Northumbria Students' Union (NSU) is here to make sure you have the best experience possible. NSU is one of the largest and most exciting Unions in the country and that's all because of YOU. We represent you, the student, on all levels, on the issues students are concerned about; receiving a great academic experience, being very employable when you graduate, being safe on campus and in the city and having a fantastic time while a student.

NSU is run by students for students. You can have your say in what NSU does and how it is run, by contacting your [Sabbatical Officers](#) or by coming along to [Student Council](#)

**MEMBERSHIP:** As a student of Northumbria University you are automatically a member of the Students' Union. We also sell NUS Extra Card from the Students' Union at both [Coach Lane](#) and [City Campus](#) giving you discounts in shops and online, but you don't need one to use any of our services.

**DIVERSE:** Your Students' Union is a place which brings together students from all walks of life, all parts of the country and the world and many different cultures. NSU provides lots of opportunities for you to [Get Involved](#), make lasting friendships, increase employability and have FUN!

**INDEPENDENT:** NSU is independent of the University, with its own staff, services and decision-making structure. Run by students for students, providing the best services and opportunities for students we push for change from the University to deliver for students. Find out more at our [You Said, SU Did](#) page. If you need advice about academic appeals or other issues, we can help. Check out the [Advice Page](#).

**VALUE:** Your NSU offers the best value for money, and everything you spend goes straight back into the Students' Union to fund all the activities that we run for you.

If you would like more information check out the website [www.mynsu.co.uk](http://www.mynsu.co.uk) or come and see us at our [offices](#) in City, Coach Lane and London.

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The libraries at City Campus and Coach Lane provide access to a wide range of print and electronic resources including over half a million print books, over 700,000 eBooks and more than 50,000 electronic journals. More details can be found on the University Library website: <http://library.northumbria.ac.uk/home>

**City Campus Library** (number 14 on City Campus map) is housed near the Student Union building (number 30 on City Campus map).

**Coach Lane Library** is situated on the East Side of the Campus, in F Block (number 16 on Coach Lane Campus map).

City Campus library is open 24/7 during term time and from 9am to midnight during vacation times. Coach Lane library is open 7am until midnight (Monday to Friday), 9am until midnight (Saturday and Sunday). Opening hours are prominently displayed in the foyers of the library buildings, any changes are advertised on the Library website and on social media. Opening hours vary during bank holidays and are subject to change, so please check before you travel.

You will need to keep your smartcard with you to gain access to and leave the libraries. Your Smartcard is a universal card which not only gives access to the Libraries and other University buildings, but it also allows you to print, copy, scan, borrow books and make cashless payments.

The Library Catalogue can be accessed on and off-campus through the University Library website and the dedicated catalogue computers on each floor of both Libraries. The catalogue can be used to search for books and eBooks located in the University Library. It is quick and easy to use and will give you the information you need to locate the material on the shelves or read online. eBooks can be read on and off-campus, anytime, anywhere. NORA can be used to search for, and retrieve, up-to-date scholarly materials including articles, reports and statistics that are relevant to your studies. You can browse through all the online resources relating to your subject in one place including databases, journals and websites.

Students are entitled to borrow up to 15 items at any one time. Items can be issued using the self-issue machines on the ground floor of City and Coach Lane Libraries. You can renew your library books online through the MyLibrary section of MyNorthumbria or via the Library Catalogue.

Northumbria students can use other libraries such as the Robinson Library at Newcastle University and Newcastle City Library using the SCONUL access scheme. For more information see the Library SCONUL information page: <http://library.northumbria.ac.uk/sconul-holiday>

The Northumbria Skills Programme is a comprehensive skills programme designed to develop the key skills you need to succeed at university and beyond provided by the Library. It runs throughout the year and provides classroom style skills sessions on many topics including academic writing skills, giving accomplished presentations, and referencing your work correctly, as well as regular drop in surgeries. Some sessions are bookable; simply consult the timetable on the Northumbria Skills Programme website: <http://library.northumbria.ac.uk/skillsdev-nsp>

Skills Plus is the Library's collection of online learning materials, with a focus on digital literacy and study skills that can be accessed on and off-campus. Using these resources is an excellent way to develop your skills through a range of online tutorials with quizzes, video demonstrations and printable help guides. <http://nuweb2.northumbria.ac.uk/library/skillsplus/topics.html?l3-0>

If you need help or advice, on or off campus, you can contact Ask4Help. The Ask4Help service provides you with help and support to access a range of University services including Library, Disability Support, Student Finance and Careers. The quickest way to find answers to some of the most popular questions asked by students is to look at Ask4help online. You can also contact us by phone and speak to a member of our dedicated enquiry team or email us your questions.

[www.northumbria.ac.uk/ask4help](http://www.northumbria.ac.uk/ask4help)

[ask4help@northumbria.ac.uk](mailto:ask4help@northumbria.ac.uk)

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