

## Course Information Sheet

# BA (Hons) Computer Games Art

**Mode and course length** – Full-Time (4 years)

**Location** – ARU Cambridge Campus

**Awarding Body** – Anglia Ruskin University. As a registered Higher Education provider Anglia Ruskin University is regulated by the Office for Students.

## Overview

Our BA (Hons) Computer Games Art degree will equip you with 3D computer games skills in modelling, texturing and animation, enabling you to create characters, environments and special effects.

You'll learn how to plan your designs using concept art and bring them to life using animation and interactive games software such as Unity 3D. You'll also be given access to the latest technologies, supported by a dedicated Computer Graphics Technical Officer.

TIGA logo

According to Microsoft, "65% of today's students will be doing jobs that don't even exist yet". Our flexible modules will allow you to explore different aspects of the digital arts as well as specialise in your chosen area, helping you future-proof your career.

Thanks to our close links with other Cambridge School of Art courses, you'll also have the chance to work with illustrators, animators, graphic designers and film students, preparing you for future collaborations and employment in creative industries outside of gaming.

With help from industry-based lecturers as well as our own teaching staff, you'll be shown the most up-to-date practices for artists working in computer games. We have links with many local games companies including Ninja Theory, Jagex and Frontier. We're also partners with the Global Science & Technology Forum, giving you access to cutting-edge research materials.

## Course Delivery

Our courses are delivered through teaching and learning methods which provide students with the widest possible exposure to a modern and innovative higher education experience.

These methods vary and could include attendance at lectures and seminars, undertaking laboratory exercises or work-based activities, practical work, performances, presentations, field trips, other relevant visits and e-learning through Canvas, our online learning management system.

Each course is divided into a number of 'modules' which focus on particular areas, each of which has a specific approach to its delivery. This information is published to students for each module they take via the Module Definition Form (MDF) and Canvas.

## Assessment

You'll show your progress through a combination of written and practical work.

## Fees

Information about your course fee including any annual fee increases or deposits (if required) can be found in your offer letter.

## Additional Costs

Estimated £500 on materials (across three years)

## Modules

### Core Modules

#### **Year 1: Foundation in Art and Design**

This module will provide students with the necessary skills to begin studying at level 4 in Art, Design and related courses.

Students will be introduced to the core skills necessary to succeed in higher education, including researching and referencing appropriately, demonstrating appropriate ICT skills, and communicating effectively verbally and in writing.

Students will be introduced to practical art and design skills including developing skills of visual storytelling, image-making both in traditional and digital media, visual language and communication, formulating an independent creative response to a broad range of subject matter.

Students will also be introduced to the fundamentals of design from a creative perspective, and to some of the key ideas/movements dominating art, design and culture, during the past few centuries.

Students will work extensively in groups and collaboratively, with students from art and design, architecture and engineering pathways.

The module is made up of the following 8 constituent elements:

- Interactive Learning Skills and Communication (ILSC)
- Information Communication Technology (ICT)
- Composition and Style
- Creative Workshops 1
- Approach to Design
- Critical and Contextual Studies
- Creative Workshops 2
- Specialist Project

#### **Year 2: Introduction to Computer Games Art**

This module introduces you to the central skills and processes of a computer games artist, where creative vision and digital technology meet. This requires you to balance technical concerns with an appreciation of what makes moving and static images work. The module develops your awareness and working knowledge of how 2D and 3D images are constructed and read by setting a series of challenging briefs throughout the module. With each brief you encounter exercises and seminars relating to the technologies and formats you are using. For instance, as you build models you learn about 3D modelling in the light of other artists' interpretations of space, composition and use of colour. In short, as your digital 3D pieces grow you are called on to problem-solve by turning not only to technological fixes but also to creative interpretations of art techniques. An element of Personal Development Planning is included in the module.

#### **Year 2: Concept Art and Drawing for Computer Games**

This is a broad creative drawing module that explores life drawing, location drawing, experimental mark-making, storyboarding and the development of concept art for computer games. As well as introducing the formal aspects of drawing, the module encourages you to develop an understanding of the relevance of traditional media and observational techniques in relation to computer games art. Through experimentation with varied approaches to mark-making and focused ways of image creation, you explore how drawing and concept art can enhance and inform your project work in digital media. Sessions take place in the Cambridge School of Art, on location at museums and at a variety of destinations of visual interest. A series of workshop projects explores observational drawing, drawing techniques and concept art development, which provides scope to investigate composition, form, light, texture and colour. Please note: students are issued with a list of materials which they are expected to acquire and bring to class each week.

#### **Year 2: Digital Compositing**

Digital Compositing has a lineage originating from the early days of film. At this stage of the course we introduce what could be described as Vertical Editing - the layering and manipulation of images to create a unified final seamless image. This module considers techniques that will allow you to select and layer parts of disparate images in order to create new scenes, new spaces. A compositor will take 3D images, text, bitmap and vector files and in many cases use his or her skill to give them a uniform look, so it might be imagined that all these disparate elements always existed together. If you've seen a Hollywood Blockbuster movie, you've seen the compositor at work. But more often than not the compositor's work is invisible - wire removal, colour correction, keying, de-graining are the sort of skills you won't notice if he or she has been successful. In this module we look at basic compositing and examine the pixel math behind the process. It is important that you understand what is happening at pixel level so that you might write your own patches or shaders in later modules. You will be shown what goes on 'under the bonnet' of the software, rather than readily accepting default results. However, as you create new composites you will be asked to use creative judgement on whether these new images are believable, and what art/film conventions are supporting them.

### **Year 3: Advanced Computer Games Art**

This module offers you a sustained workshop - based opportunity to synthesise and develop digital computer graphic skills beyond those learnt at Level 4. Sculptural modelling technology will be combined with techniques that build on earlier modelling work. You will explore how to add further control in developing your artwork through intervention with scripts beyond the standard interface. You will be encouraged to creatively use forces, dynamics and particles in your computer graphic work. Further rendering and lighting techniques will expand the expressive range of your artwork. This module builds up technical and artistic knowledge in the following areas: 1. Sculptural Modelling: using traditional sculpting techniques with computer graphics software. 2. Scripting: you will be shown how scripting can be utilised in your work 3. Dynamics and Particles: we look at the procedures, controls and issues surrounding the creation and usage of dynamics and particles. 4. Advanced Rendering and Lighting: setups such as global illumination and final gather will be addressed.

### **Year 3: Character Rigging and Animation**

One of the challenges in successful 3D animation is character rigging; connecting the skin or surface of a character to the adjustable skeleton which deforms that skin. In this module you need to communicate your ideas on how humans and creatures move, build skeletal rigs and create an animation. You need to show that the rig fulfils the technical demands an animator may place on it, and demonstrate an understanding of principles of 3D animation. The rigs you create should aim to be intuitively controllable. In this module you bind skeletons to meshes - with realistic and seamless deformation. You will test and report on your rig and those of your cohort, working in groups and sharing skills where necessary. You work with scripting. This module has an emphasis towards skeletal rigging rather than facial rigging. Whilst it is possible for you to concentrate on facial set - ups, you first need to demonstrate you are adept at full character rigging. It is possible in this module, with the module leader as arbiter, to collaborate with 3D artists to use some of their models.

### **Year 3: Computer Games Development**

The computer games and the visual effects industries involve a high level of collaboration across a range of disciplines; in this module you look at industry approaches to computer games development through team participation to create art assets for an interactive video game. Industry production methods are adopted to simulate business conditions that test organizational, collaborative and creative skills. Industry involvement in providing the brief and contributing to the project takes places when possible. The game design brief is supplied, and then need to be discussed and developed by the team. Team roles and responsibilities are assigned, and you should maintain a personal project blog during the module to map your progress. You are also expected to write and submit a Personal Development Plan (PDP) to outline your responsibilities and team expectations. The module introduces project management skills and commercial factors that are relevant to development teams in both the computer games and visual effects industries. The development pipeline for the project is mapped out and you are advised on best practice for structuring and developing the game set in the brief. This is reflected in the methods of artwork creation and organization, setting achievable goals, tracking development and identifying potential and existing problems. Source control software is used to manage assets for the game project and regular development meetings track project progress.

### **Year 3: Digital Practice**

This module encourages the selection of your preferred area of digital practice for focused development. For example, it could be character animation, environment modelling, concept artwork or visual effects. Personal research will feed into and expand

your own work through an investigation of artists, theory and relevant computer graphic technical processes. Research and development will be well documented and show the link between the broader professional context and your own work. In this module you will be expected to contribute to class critiques and to present your work in progress to the group. There will be tutorials, industry lectures, studio discussions and workshops to support your development in Computer Games and Visual Effects. By the end of this module you will have developed a deeper understanding of your area of interest and be able to analyse how this aligns with the broader context of the subject area. You will have created an innovative portfolio of digital work that builds on self-directed research and experimentation.

### **Year 3: Debates and Practices**

This module's purpose is to explore the links between critical studies and practice. It is intended to enable you to enrich your knowledge and develop your articulacy about your specialism and draw on wider perspectives in relation to your own work. It will be especially attentive to debates about contemporary practice. The module will be seminar based and may be held in the studio, when appropriate and possible. Discussions will engage theory and history with your own developing ideas about contemporary production. The agenda will be open and respond to current events, work and interests.

### **Year 4: Specialised Practice in Computer Games**

This module gives you the opportunity to further extend your chosen area of interest, building on work developed at Level 5. It enables you to reflect on existing work, and to research and clarify your intentions, in order to engage in a sustained and focused period of creativity. You will consider the professional requirements of the subject specialism and identify practitioners relevant to your work. You will create a new body of work that reflects an awareness of the context of the subject discipline appropriate to Level 6 study. You will need to manage time efficiently, consider the value of teamwork against individual endeavour and ensure that any new work is achievable within the timeframe. At the start of this module you write up a Learning Agreement to be discussed and agreed with your Course Tutor. This short document should clarify and aid your programme of work in Level 6.

### **Year 4: Major Project: Computer Games Art**

The Major Project is the culmination of the Art and Design undergraduate practice courses. Depending upon your course, you will pursue the Major Project individually or as member of a group. At the outset, you will prepare a demanding proposal for an independent creative project, to be approved by your supervising tutor. In this final project, you will need to demonstrate your capacity to work to a planned schedule, research your options imaginatively, take account of current thinking on the issues your project raises, develop your work in convergent and divergent ways, respond positively to criticism and arrive at creative solutions. You will be expected to display, in both preparatory and finished work, an advanced understanding of the methods, techniques, materials and processes appropriate to your chosen media. Your developmental work will be subject to peer and tutor review and assessed with your finished work.

This module is exempt from the full ethical approval process in accordance with section 6 of the Academic Regulations ([www.anglia.ac.uk/academicregs](http://www.anglia.ac.uk/academicregs)).

## **Optional Modules**

*(Subject to availability)*

### **Year 2: Digital Sculpting**

This is a specialised creative digital sculpting module that explores the development of character concepts and assets for computer games. To introduce the essential aspects of character generation, the module encourages you to develop an understanding of the relation between traditional hand drawing and 3D asset generation in computer games arts.

Through experimentation with varied approaches to character and asset production, you explore a significant range of digital tools to inform your creative game development skills. Sessions utilise ZBrush to explore body, mass, texturing and detailing, and refined asset presentation.

This module must be taken by all students, except in the specific circumstances where an international student may be required to take an additional English for Study module instead, in order to improve their English Language level.

### **Year 2: English for Study 1**

This is the first in a series of English for Study modules. It aims to support those students who are at or below IELTS 6.0, or equivalent, in their academic writing/discussion abilities. It develops both students' grammatical accuracy and their ability to extract key points from a variety of spoken texts. It further requires students to demonstrate increasing awareness of essay planning and the importance of summary writing and referencing skills in academic essays. Discussion skills are also developed to ensure students are able to contribute in both seminar and tutorial discussions. The module, taught over two hours per week will consist of a variety of activities including group debates, and discussions, presentations, listening and comprehension exercises from authentic audio, and audio-visual material of academic lectures. Students will also be guided in independent learning, via the Language Centre and Library and the Language Laboratories through a wide range of media resources including newspapers and academic journals, videos, and internet.

## **Year 2: English for Study 2**

This is the second in a series of English for Study modules. It aims to further develop students' essay writing skills and reading techniques. It concentrates on advanced writing and organisational skills: planning essays, writing introductions, paragraph development and writing conclusions as well as looking at style and the development of argument. Emphasis is also put on the importance of relevant and accurate referencing and paraphrasing and issues surrounding plagiarism and collusion. The module also focuses in on text referencing such as tables and charts etc., and bibliography structure and appendices. Problematic areas of grammar are also looked at including the passive voice, conditionals and inversion to enhance style. The module, taught over two hours per week will consist of a variety of activities including group debates, and discussions, reading comprehension exercises from authentic texts, and academic journals. Students will also be guided in independent learning, via the Language Centre and Library and the Language Laboratories through a wide range of media resources including books, academic journals, videos, and internet.

## **Year 2: Computer and Video Games Studies**

This module presents an introduction to key theories and debates in the academic study of computer and video games. Starting from the history of the digital game and its relationship with older cultural forms, the module provides students with key texts and arguments - including the foundational opposition between formal/rule-based and aesthetic/narrative approaches - for analyzing computer and video games as cultural forms. It introduces students to a range of approaches for examining computer and video games as material objects, including historical and archaeological approaches to gaming technology, and social and economic approaches to the distribution and consumption of games. The concept of games as narrative forms is explored, drawing on a range of work from computer and video game studies, and contrasted with the study of graphics-led digital games. The practice of studying games as rule-systems or structures is analyzed; games are defined as belonging not to the tradition of literature and film but instead to that of computers, programming and software, and pre-digital games such as chess. The relationship between digital games and other media (film, animation and television) is examined, which allows students to discuss the differences and similarities between active and passive media through the way in which space is configured in each form. There will be an emphasis on developing academic skills that prepares students for contextual studies at higher levels. This focuses on basic research skills that enable students to acquire relevant source materials and knowledge in this specialist area.

This module must be taken by all students, except in the specific circumstances where an international student may be required to take an additional English for Study module instead, in order to improve their English Language level.

## **Year 3: Design for the Screen**

Design for the Screen is a module which explores how designers collaborate with directors, cinematographers and costume designers to visually portray character, period, place, mood, quality in order to support and develop visual story telling for the screen. The module considers the responsibilities of different roles in pre-production and looks at how designers communicate and document collaborative decisions, how designers get information to set, and the chain of communication through the art department. During the module, you will make presentations, watch and discuss selected screenings covering the material, and practice using the elements of mise-en-scène for a selected script. During the module you will also examine different sorts of design typologies that assist in your visual decisions and ultimately with your collaborations with key creative members of screen production. In completing this module, you will undertake the breakdown of a script to identify design potential. You will use your breakdown to explore how to manipulate the elements of design for the screen and the languages of genre. Elements explored include colour, texture, scale, lens and stock choices, choreography, tempo, special effects, costume and composition. The module provides an opportunity for you to review a variety of different design styles and visual languages used in screen culture which assist and inform design decisions.

### **Year 3: Business for the Creative Arts**

This module introduces you to the practical tools you will need to set yourself up in business in the creative arts, either as a company, a partnership, a freelancer or an employee. It also asks you to explore, imaginatively and creatively, a sector of the creative industries, and your own potential opportunities within it. The outcome of the module is a basic business plan or employment strategy developed from your ideas. Emphasis is placed on self-reflection, innovative thinking and communication skills.

Subjects covered include: the Creative Industries; analysing business ideas; types of business model; assessing your market; ideas behind marketing; basic accounts; tax and legal issues; and planning for start-up. You will be asked to translate these into practice by applying them to your own ideas, which will then become part of your own business plan or employment strategy.

The module is delivered by lectures, seminars, student presentations, critiques and workshops.

### **Year 3: Writing for Sequential Images**

This module will give you an insight into common and alternative story structures and will enable you to build and create stories for sequential media, in particular picture books, graphic novels, animation and games. Central to this understanding and creation of a picture-based story is the combination of the handmade image and other modes of expression such as written text, sound, movement and interaction. You will gain insight into story structures and story development, character development, plotting and story-worlds. You will learn skills such as story development, adaptation, scripting, creative writing, dialogue and you will learn how to translate and adapt original material and existing texts into story treatments, scripts and storyboards for a range of visual media.

The insight into story structures and story development and the linked creative and practical processes are addressed in a series of classes and seminars, where both traditional and alternative forms of visual narration and image-text relationships are explored. In workshops, exercises and set briefs you will be challenged to apply this knowledge and create story texts, scripts and storyboards. This will include the creation of work based on your own ideas.

Ongoing critiques will formatively assess, analyse and evaluate your development; including the narrative quality, technical competency and appropriateness for purpose, within the given briefs requirements.

### **Year 4: Research Project**

The Research Project is intended to foster your independent study with the guidance of a tutor. You will devise your own project which will reflect on /co-ordinate with / enhance your own studio work and interests. Self-reflexivity and a critical distance will be encouraged. The seminars provide a forum for students to learn from each other's research. There will be opportunities for individual tutorials with a member of staff. The Research Project may include a variety of relevant topics, including reporting on work experience. It may be illustrated with photographs, drawings, video. The approach is to be discussed with the tutor concerned.

### **Year 4: Research Assignment**

The Research Assignment is intended to foster your independent study with the guidance of a Supervisor. On the Research Assignment module, you will devise your own project which will reflect on / co-ordinate with / enhance your own studio work and interests. Self-reflexivity and a critical distance will be encouraged. The classes provide a forum for students to learn from each other's research. There will be opportunities for individual tutorials with a member of staff. The Research Assignment may include a variety of relevant topics, and the topic will be negotiated with your supervisor. It may be illustrated with photographs, drawings, video. The approach is to be discussed with the supervisor concerned.

### **Year 4: Working in the Creative Industries**

Gaining work experience enhances employability, and work based learning offers you the chance to gain industry knowledge, skills, contacts and networking opportunities.

This module is designed to give you the opportunity to explore a working environment in the industry that they have identified as relevant to their present or future needs. The module will encourage self-managed learning, and serves to increase employability by developing personal organisation, team-working, and networking skills - thereby increasing self-reliance and

confidence. The experience can be used as a basis for directing and focussing your career plans, and can influence your final year projects.

You are required to identify, negotiate and agree with an employer (or employers) the terms of the placement in association with a module tutor, to ensure that the module learning outcomes can be achieved. You will create a reflective report on your work experience. This will include: the application procedure you have conducted (CV, letter and portfolio); market and background information on the employer; your role(s) on the placement(s); academic and vocational analysis; skills and experiences (opportunities, advantages, constraints, aptitudes and interests). You will also be asked to include a workplace diary that logs activity and supports an analysis of the learning achieved. The employer will be asked to complete a Student Feedback package on completion of the placement. The work placements may be carried out in a variety of settings depending upon your requirements, areas of interest and availability of opportunities. The minimum period will be 100 hours, and you can undertake more than one placement for the module.

#### **Year 4: Academic English: Written Text**

In this module, you will develop a more sophisticated understanding of written text, in particular the linguistic and academic skills applied at university level study. The module will help you to advance your reading and writing skills in English to at least C1 level of the Common European Framework of Reference for Languages, giving you enhanced communication skills and employability. The module focuses on advanced writing skills which will help you to both understand and produce a variety of academic texts. These texts can include essays and other written assignments, abstracts, proposals, literature reviews, annotated bibliographies and other academic text types. You will develop an awareness of genre and will improve your understanding of, and ability to produce, academic writing with appropriate formatting, register and style, coherence and cohesion features. Alongside a focus on analysing text you will increase your ability to write effectively, developing process writing skills such as planning, organising ideas, drafting, proofreading and editing academic work. You will also develop better writing outcomes, working on skills including constructing lines of argument, organising effective paragraphing and using evidence or supporting materials to exemplify content effectively. You will improve your ability to produce discursive text, looking at a range of academic topics such as global citizenship, sustainability, social justice and internationalisation. In addition, you will extend your understanding of aspects of academic practice including accurate referencing or citation and the use of bibliographies and will receive guidance about independent learning using the wide range of resources available in our University Library, LMS and Language Centre. In class, you will be expected to participate in pair and group work and to contribute to interactive learning tasks. You will also be required to undertake peer and self-assessment exercises and to reflect on your learning experience.