

Course Details		
Lead Provider	University of Bristol	
Embedded Qualifications (including Awarding Body)	Not accredited or credit bearing.	
Guided Learning Hours GLH (Contact)	Several of our network have kindly agreed to offer open studio visits to their own facilities for the learners on this Skills Bootcamps. These visits will take place during the Skills Bootcamp - we are currently working to determine dates for when these will be offered. It will be expected that each learner on the Skills Bootcamp will engage with at least one in person open studio visit. Each learner will also be offered mentoring with Gritty Talent to support their career development and a 1:1 with our Authorised Unreal Trainer answering any questions they have in order to get their Unreal Virtual Environment ready for the Virtual production LED. These sessions will be flexibly arranged around your and staff availability.	
Non-GLH (Non-contact)	Varied depending on how much "extra" hours you can/want to put into developing your skills and knowledge further in addition to the GLHs. Education materials, software and further online links/videos will be made available through the University's Virtual Learning Environment, to engage with outside of the GLHs but there will be no assumption made that you will be able to have the time commitment to engage with this material outside of the GLHs.	

The information provided below is intended to provide an indicative curriculum of the Skills Bootcamp in Virtual Production with Unreal. The University of Bristol and delivery partners reserve the right to change the curriculum and delivery format.

facilities.



Wednesday 17 December - Welcome and Induction (½ day In person at MyWorld Sheds, near Temple Meads, University of Bristol)
Introduction to the course to settle learners in and make sure they are aware of the structure of the Skills Bootcamp, a reminder of the expectations of them as learners and what they can expect from the educational delivery team, and all the support provided (both as directly part of the Skills Bootcamp itself but also the wider University of Bristol as a registered student). Learners will also have a tour of the MyWorld

Thursday 18 December - Mastering Inclusive Teamwork - communication and conflict resolution for stronger teams (½ day In person at MyWorld Sheds, near Temple Meads, University of Bristol)

• Inclusive teams perform better- that's a fact. We will look at how to embed Equity Diversity and Inclusion (ED&I) into your daily work and equip you with the knowledge and tools to build and work in inclusive teams where everyone can thrive and succeed.

Friday 19 December - Introduction to Virtual Production (VP) & In Camera VFX (ICVFX) (½ day Online)

- How VFX evolved into Virtual Production.
 The history of the technological advancements in filmmaking will be discussed, to provide a contextual understanding of the development of virtual production and its significance to the advancement of the industry.
- What is Virtual Production?
 An overview of key elements of Virtual Production will be detailed and presented to provide a foundational understanding of this discipline.

A showcase montage will be shown of the variety of virtual production applications and types of productions that are applying virtual production to their projects.

The ICVFX / VP Onset Team Roles & Responsibilities - Pre-Production & Onset

- Overview of each role and their responsibilities within the VP team
 The numerous roles involved in Virtual Production will be detailed
 and discussed, including the responsibilities of the role holders and
 how they all fit together in the VP team.
 - On Set Responsibilities
 The On Set experience and 'chain of command' is specifically detailed and discussed by reviewing the organisational chart on a variety of virtual productions with real world examples (HETV, Film, Documentary, Music Video). Students will participate in breakout sessions to workshop a real scenario and design the virtual production team required based off the production requirements.

Week 1



	 Core Competencies - soft skills and technical competencies. The core competencies required to be a successful crew member of a Virtual Production will be detailed and discussed, with differentiation between critical and advantageous skills.
	Unreal Engine Training - School of Computer Science, Merchant Venturers Building, Clifton Campus, University of Bristol
Week 2	 Tuesday 22 December (Full Day In person) Downloading and Installing Unreal: Learn how to set up an Unreal Engine environment, including account creation and version management. Using Asset packs and bringing in custom Assets: Discover how to import ready-made and custom assets like characters and props to speed up your project development. General Framework: Understand the basic structure of a game
	 engine, focusing on Unreal's architecture for building games. Navigating the Unreal Interface: Get comfortable with the Unreal Editor, including key panels, menus, and shortcuts. Static Mesh Types: Explore different types of static meshes, which are essential for creating detailed environments and objects.
	Unreal Engine Training - School of Computer Science, Merchant Venturers Building, Clifton Campus, University of Bristol
Week 3	 Monday 5 January (Full Day In person) Lighting: Learn how to effectively use lighting to set the mood, atmosphere, and visual aesthetics in your game scenes. Materials: Understand how to create and apply materials to objects, giving them realistic textures and appearances. Physics: Dive into Unreal's physics engine to simulate real-world dynamics like gravity, collisions, and interactions. Simulation: Explore simulation techniques for creating more immersive and interactive environments within your game. Audio: Learn the basics of integrating sound effects and music, enhancing the overall player experience.
	 Tuesday 6 January (Full Day In person) Landscapes: Master the tools for creating vast, detailed landscapes that form the backbone of your game's environment. Level Building: Focus on assembling and designing game levels, ensuring they are both functional and visually appealing. Water plugin: Implement realistic water features, utilizing Unreal's water plugin for lakes, rivers, and oceans. Particles: Create and manipulate particle systems to add dynamic
	effects like fire, smoke, and explosions to your scenes.



Wednesday 7 January - The Virtual Production & ICVFX Content Workflows (½ day Online)

• The Content Approaches for Virtual Production Understanding and exploring in detail the key approaches utilised for the creation of the digital environments to be displayed on the volume. This will cover the three main approaches typically used within commercial productions today. Exploring the pros and cons of each, understanding their limitations and when one should be used over another.

Week 3

Unreal Engine Training - School of Computer Science, Merchant Venturers Building, Clifton Campus, University of Bristol

Thursday 8 January (Full Day In person)

- Blueprints: Get hands-on with Unreal's visual scripting system, allowing you to create complex gameplay mechanics without writing code.
- **Sequencer:** Learn how to use Unreal's cinematic tool for creating cutscenes, camera movements, and other animations.
- **Particles:** Further your understanding of particle systems, focusing on more advanced effects and optimizations.

Friday 9 January (Full Day In person)

- Advanced Blueprints: Explore deeper into Blueprint scripting, enabling more complex and refined game logic.
- Individual Project Focus: Allocate time for students to refine their projects, adding final touches and features with instructor guidance.

Monday 12 January - Career Mapping and CV Workshop (½ day In person at MyWorld Sheds, near Temple Meads, University of Bristol) - navigating your career path and crafting the perfect cv.

• Looking to the future can feel overwhelming but having a plan makes it easier. This session helps you map out your career and create an actionable plan. You'll learn how to highlight your transferable skills, support your personal progression and in a hands-on CV masterclass, discover how to make your CV stand out whilst exploring different styles and formats.

Week 4

Tuesday 13 - Thursday 15 January - Unreal Deep Dives on various topics (In person, School of Computer Science, Merchant Venturers Building, Clifton Campus, University of Bristol)

Learners will choose which sessions to attend so you will not be required to attend all three days.



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Week 5	Tuesday 20 January - How to successfully produce a Virtual Production shoot (½ day Online) • VP Producer panel shares their experience and top tips A range of VP Producers will present their experience and top tips to effectively schedule, budget and produce a virtual production shoot. This will provide an overview of key workflows from concept to completion. A forum for Q&A will allow students to gain information directly from experts. This section will also feature key introductions to roles from outside of the Virtual Production studio team such as gaffers, Art Directors and DOP's to provide critical areas of consideration, outside of content production, for producers when undertaking a VP shoot. A masterclass deep dive case study presented by an experienced VP Producer will provide a clear real-world example to bring these insights to life. Wednesday 21 January - Planning your Virtual Production shoot (Full day In person at MyWorld Sheds, near Temple Meads, University of Bristol) Each learner will be allocated into a production team. Each production team will then be required to attend a full day to start to plan their VP shoots.
Week 6	In person Virtual Production Practical Training at MyWorld Sheds, near Temple Meads, University of Bristol Monday 26 January - Meet the Volume (Full day In Person) VP Systems Introduction The technology systems that make up the Volume will be thoroughly explained, and participants are able to move around within the Volume and interact with the key elements to build familiarity ahead of the demos. Camera Tracking Introduction A more detailed discussion of camera tracking with live 'hands-on' experience with the hardware and software components. Media Server Introduction A more detailed discussion of the importance of media servers with live 'hands-on' experience with the hardware and software components. Virtual Production Communications On Set A practical 'On Volume' walkthrough of the key communication hierarchies when working with large crews to deliver a virtual production. Tuesday 27 January or Wednesday 28 January - 2D Plate Live Demos (Full day In Person) We will confirm which of these dates you will be required to attend upon confirmation of a place on the Skills Bootcamp and



allocation to a production team.

- Production Teams 1, 2 & 3 27 January
- Production Teams 4, 5 & 6 28 January
- 2D Content workflow recap from online sessions
 The learnings made on the online session will be refreshed and reinforced
- Live Virtual Production Demos 2D Plate Playback
 A real virtual production film shoot will be undertaken.
 Participants will get hands-on: forming production company style
 teams, be supplied with plate scenes and props to work with and
 create mini scripts for shooting using the techniques and tools they
 have learned in the training. The teams will be supplied with
 camera & lighting kits with support from the studio VP team in
 order to undertake a live virtual production and ICVFX shoot.

Thursday 29 January or Friday 30 January - 3D Real-time Live Demos (Full day In Person) We will confirm which of these dates you will be required to attend upon confirmation of a place on the Skills Bootcamp and allocation to a production team.

- Production Teams 1, 2 & 3 29 January
- Production Teams 4, 5 & 6 30 January
- Using Unreal Engine scenes in a Virtual Production shoot
 An experienced Unreal Engine Operator and VP Supervisor will
 outline an overview of the VP toolset within Unreal Engine, Virtual
 Art Department (VAD) Basics alongside the Basic Principles of
 Creating Content for VP, how to optimise and measure
 performance. Key software will be detailed and discussed.
- Student Unreal scene review
 An experienced Unreal Engine Operator and VP Supervisor will workshop the scenes created by students in the prior Unreal Engine training. Specific commentary on the suitability of each scene for virtual production will be discussed.
- Live Virtual Production Demos 3D Real-time Playback A real virtual production film shoot will be undertaken. Participants will get hands-on: forming production company style teams, using the Unreal Scenes they have created in the prior Unreal training. Using props they have sourced to compliment the scenes, they will generate mini scripts for shooting using the techniques and tools they have learned in the training. The teams will be supplied with camera & lighting kits with support from the studio VP team to undertake a live virtual production shoot.
- Expert panel review
 Members of our MARS Academy team will participate in a panel
 discussion of the students project work, providing feedback to each
 teams live virtual production shoot. A Q&A session will be
 facilitated to reinforce the learnings.

Week 6



Week 7	Tuesday 3, Thursday 5 or Friday 6 February - Production Team 2D Shoot Day (½ day In person at MyWorld Sheds, near Temple Meads, University of Bristol) Each production team will have a half day in the studio for their 2D shoot. We will confirm which of these dates you will be required to attend upon confirmation of a place on the Skills Bootcamp and allocation to a production team. • Production Teams 1 & 2 - 3 February • Production Teams 3 & 4 - 5 February • Production Teams 5 & 6 - 6 February Wednesday 4 February - Connections and Conversations - networking and interviewing for career success. (½ day In Person at MyWorld Sheds, near Temple Meads, University of Bristol) • In this practical session, you'll learn how to utilise and expand your professional network to help secure future opportunities. We'll share tips on how to effectively pitch yourself and make lasting connections as well as perform at your best in an interview situation.
Week 8 & 9	10, 11, 12, 17, 18 or 19 February - Production Team Shoot Day (In person at MyWorld Sheds, near Temple Meads, University of Bristol) Each production team will have a full day in the VP studio to shoot. We will confirm which of these dates you will be required to attend upon confirmation of a place on the Skills Bootcamp and allocation to a production team. Tuesday 10 Feb: Production Team 1 Wednesday 11 Feb: Production Team 2 Thursday 12 Feb: Production Team 3 Tuesday 17 Feb: Production Team 4 Wednesday 18 Feb: Production Team 5 Thursday 19 Feb: Production Team 6
Week 10	 Wednesday 4 March - Industry Networking Event - face-to-face networking event in Bristol (Full day In Person at MyWorld Sheds, near Temple Meads, University of Bristol) We aim to match you with the most relevant local employers and facilitate exclusive chats with multiple contacts. An opportunity to meet leaders and senior creatives from a variety of companies from the Bristol and South West Creative Sector for curated short 'chats'. Thursday 5 March - Celebration Event (½ day In person at MyWorld Sheds, near Temple Meads, University of Bristol) An event to celebrate the completion of the course and a chance to screen what the learners have filmed (if learners wish to) within the Cinema.



 Speakers from our network will also be invited to give a talk about their VP work and provide a further networking opportunity.