The Summer of Unreal timetable

The Summer of Unreal course is designed to deliver a workshop every morning 10.00 BST, leaving afternoons free to practice or get on with your daily life. You have lots of time to collaborate in your teams

WEEK 1:

What is this week about?	WEEK 1: Monday 26th July	Tuesday 27th July	Wednesday 28th July	Thursday 29th July	Friday 30th July
This week is about building a foundation of what Unreal is, how it works and what impact it can have on your workflow. By the end of this week, you will understand the process of asset ingestion with shaders and lighting and will be able to use this to arrange objects in your scenes to create simple sets, ready to let your animation run wild!	**Introduction: why use Unreal?** Installing - Epic Games Launcher - training resources - Explore the Interface, windows and user environment - Viewports - Transformations, units and measurements - Navigation and Basic Usage of the editors - FBX Interoperability - Mesh triangle counts - Clean mesh construction	**Materials** Understanding the PBR Workflow - Master Materials and Material Instances - Texture Editor - Texture Formats - Mipmaps - Texture Groups - Material Editor UI - Node Based workflow - Material Functions - Shader Complexity - Advanced Techniques	**Expert Showcase Day** A day to listen to professionals and companies across Europe tell you how they already use Unreal in their workflow AND/OR a masterclass from a leading European school	**Lighting in Theory and Practice** Get to grips with - Light Mobility (Static vs RealTime) - Lightmass (Lightmap control and baking) - Lighting Types - Controlling light properties - HDR lighting and backdrop - Reflections - IES Profiles - Light Functions	**Project Day – Intro to the project** Introduction to the team project and teams

WEEK 2:

What is this week about?	WEEK 2: Monday 2nd August	Tuesday 3rd August	Wednesday 4th August	Thursday 5th August	Friday 6th August
This week takes a further look into how to light scenes for different scenarios and how to leverage the power of Unreal for its realtime capabilities creating more complex setups. As well as this, you will also learn how to use Unreal for Animation playback and Cinematography. By the end of this week you can start building your shots and edits directly in UE.	**Practical Lighting** Lighting in different scenarios (stylised and realistic) - Why do you use certain lighting set-up over other in certain situations? - Raytracing - View modes and optimisation - Sun positioning and sky - Exposure control - Fog and Volumetric lighting - Lightmap settings in depth - Lumen UE5	**Expert Showcase Day 2 Lighting/Engine Optimisation** A day to listen to professionals and companies across Europe tell you how they already use Unreal in their workflow AND/OR a masterclass from a leading European school	**Using Unreal for Animated Sequences** Introduction - What is Sequencer? - Sequencer Interface - Cinematic Views - Organising Sequences - How do Cameras Work? - Using different tracks types	**Using Unreal for Animated Sequences – Advanced** Animation Import/Export - Skeletal Animation vs Geometry Cache - Blending Animations and Properties - Using Spawnable Objects - Recording to Sequencer - Rendering Out Cinematics	**Project Day** Teams spend the time working on their project and trying out the techniques they have learnt

WEEK 3:

What is this week about?	WEEK 3: Monday 9th August	Tuesday 10th August	Wednesday 11th August	Thursday 12th August	Friday 13th August
You now have a clear idea how Unreal works and how to set up your animation shot directly within Unreal. This week improves the visual quality of your animations. It looks at the range of free content you can use like Quixel Bridge and Megascan data, By the end of the week you will have all the tools necessary to create and export your 'final' animations.	**Expert Showcase Day 3: Rigging** A day to listen to professionals and companies across Europe tell you how they already use Unreal in their workflow AND/OR a masterclass from a leading European school	**Creating Photoreal Sequences** Using Megascans and other Apps - Quixel Bridge - Using Phones and Plugins for Live Cameras - Realtime Cinematography - Recording Live Camera Data for Animation Playback	**Rendering** Taking your Final Pixels out of Unreal - Post Process Control - Movie Render Queue - Rendering Custom Passes - Raytracing - Hybrid Workflows	**Motion Graphics in Sequencer** Media Framework - 3D text tools - In-editor animation tools	**Project Day** Teams spend the time working on their project and trying out the techniques they have learnt

WEEK 4:

What is this week about?	WEEK 4: Monday 16th August	Tuesday 17th August	Wednesday 18th August	Thursday 19th August	Friday 20th August
We look beyond animation to push your shots further. This week you will take a deeper dive to use advanced functions to increase the possibilities available to you when building animated worlds. You also learn how to utilise real-time particle system Niagara, as well as look at how UE5 will change the real-time world forever.	**Unreal "under the hood"** CPU vs GPU - Bound and Frame Rate - Draw Calls - Stat Commands - Stat Window - GPU Profiler - Unreal Frontend- RenderDoc - Viewmodes for Diagnostics - Fixing Issues - How does to this work in UE5	**Niagara!** Niagara UI and Emitter/System hierarchy explained - Building our first Particle Material and first Sprite based components - Adding Mesh Particles and GPU particles - Converting the Effect from a Looping system to Burst - Animating and Triggering with Sequencer - Local vs Global particles	**Expert Showcase Day 4** A day to listen to professionals and companies across Europe tell you how they already use Unreal in their workflow AND/OR a masterclass from a leading European school	**Project Day** Now the Teams need the time working on their project to integrate and try out all the techniques they have learnt	**Project Final Showcase** It's here! Today we celebrate all the great work and progress made. We look at work, receive advice on what to do next from some great industry representatives, and hand out certificates and just have a great time.