

UNITY CODING BOOTCAMP

2025

We develop different. Instructor led coding bootcamps for everyone.

www.techeducators.co.uk





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Our Mission

To support the future of tech talent

Our mission at Tech Educators is to cultivate the tech talent of tomorrow by making high-quality, software development, game development and digital marketing education accessible to everyone, at any level or personal circumstance.

Our comprehensive courses, expert instructors, cutting-edge curriculum, and hands-on approach, equip people with the practical skills they need to succeed right away, and the know-how to stay relevant as their career develops. From 'hello world' to world class.

Supporting beginners to experienced practitioners, we're committed to ensuring that no one gets left behind in the rapidly evolving digital landscape. We provide a supportive and inclusive community where everyone can learn, grow, and thrive, as they build a better future.

Learning is a journey and through this course outline, we hope to give you an idea of how that journey with Tech Educators would progress. Whether you choose to join us in one of our locations around the country or prefer an online approach. Our courses are always instructor-led and outcomefocussed.





Tafadzwa Tino Mpofu, Full Stack Graduate

"If you don't go for something. You will never know what you could have achieved. The team at Tech Educators have been so incredibly supportive throughout the course. It's tough, but when it gets tough, you have an entire community around you to support you. That's what the bootcamp is about."

"When I think back now on what I knew before I started, how quickly I learnt, and how fast it went. I didn't realise just how great the experience was until I reflected on it."

The games industry taster session

One day

In this three-hour workshop, you will get a sneak peek of what it is really like to work in the games industry. You will build a very basic game, your very first one! As well as hear about many career paths that becoming a Unity developer could take you on.

Whilst this may be the very first interaction you have had with code, don't worry. We are here to guide you every step of the way and give you all the information that you need to decide if this course, and this career path, is for you.

Learning outcomes

- Understand the basics of what it means to be a professional Unity developer and work in the games industry.
- Create your very first lines of code in a basic code editor, and push it live to make a game.
- Be able to identify whether a career in the games industry and the Tech Educators program is right for you.

Ready to proceed?

What a difference a day makes. After this one-day taster session hopefully, you like us, we like you, but we all love coding and where we think it can take you in your journey and your career in the games industry. If after the one-day taster session, you are ready to progress, you will need to complete a short maths challenge to demonstrate your ability to complete the technical requirements needed for the full course.



Norwich Campus

The basics of Unity

One week

In our fundamentals week, students move beyond the concepts covered in the Taster Session to get a tour of the tools and basics that you will need to start working with Unity.

Whilst this week may feel like a whistle-stop tour of many of the main components of Unity, that's simply because it is. This week will prepare students by getting to grips with the basics of the Unity system and what it takes to be a Unity developer.

We will dive much deeper into using, creating and building with Unity as the course progresses, but for this week, let's just get the basics of your journey down, and understand the framework you will be using.

Focus of the basics of Unity

- Succeeding on a Tech Educators bootcamp
- Introduction to Game Development with Unity
- Getting Started with Realtime 3D
- Introduction to Programming and Audio
- Getting Started with Realtime 2D

Buckle up. Here we go.

By now everything will be set up and ready to go giving you a real grasp of the basics of Unity and what it can do. Look how far you've come in just a week and what you know now. Now prepare for the course to speed up, you're going to be making games real soon.



You don't have to be an evil

private island

super-villain

to work in tech.



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Building a game

Six weeks

Over six weeks you would be working on several games. We give you a prompt and you can experiment and add to it as you want. For instance, we ask you to make a driving game, its up to you to make it a racing game or a game where you deliver pizzas! Each week we dive into fundamental concepts and build iterative projects that embed continuous learning. Sounds fancy doesn't it?

From player control to basic gameplay. From sound and effects to user interface, we will dive into the fundamentals of building a game.

Learning outcomes

- Understand the need for basic project planning and project management. Be able to work in a team to create code that works together, towards making a game.
- Implement player control that can create gameplay using Methods, Vectors and Variances.
- Create basic gameplay mechanics and implement them into a game including projectiles, collision, object spawning, movement and game-over conditions.
- Working with animation in game design and how to create movement of objects using animation techniques.
- How to bring sound to your game, including particles and sound effects.
- Create user interfaces to allow the player to control the game and make difficulty selections.
- Build the environment and deploy the first walking skeleton project.

Let's change gear

This first six weeks will have been intense and over that time you would have made almost half a dozen mini games, all of them can be part of your portfolio now! Going through all these different projects would have taken you through many different features of Unity and C#.

So far, all the projects you have worked on in the first 7 weeks have been solo developed by you. Well done! But now it is time to work in a team for the very first time, for your first team project!



"As one of the first graduates of Tech Educators, I am so grateful for their support and where I am now. I landed a job before I completed the course and am now embedding my knowledge and furthering my skills in a career I see myself in for a long long time."

"If you are thinking of a career in tech, marketing, or any of the related fields, then I would say go for it. It isn't just about the course itself, it's about the growth mindset you build along the way."

Game Jam

One week

Okay, so the past seven weeks were wild, but by now we are sure you are settling into the swing of things. This next week is the time to solidify that learning and have a bit of fun at the same time.

We will spin the wheel to select a theme from our collection of ideas, give you a brief outline of what we'd like to see and let you run with it.

Learning outcomes

- Articulate with some certainty the type of career path you would like to take as you step into the world of games development.
- Finalise and cement any further reading and concepts that need to be defined and embedded with our mentors.
- Understand and have visibility of your own strengths and areas for improvement as a developer.
- Have an initial CV and outline of next steps in preparation for a career in the industry.

Ready for the final push?

This week will have presented some different challenges, and given you the chance to reflect on where you want to take your career. It's also going to have given you the time to prepare for the final push as we move towards bringing in some new concepts that are going to blow your mind.

Are you ready for the final push? This next bit is going to be intense, but it's going to show you just how far you've come.

"We want the Game Jam to be an exciting and enriching experience, with an emphasis on creativity and having fun. In the past, we have partnered with Norwich University of the Arts for the Global Game Jam as well.

It is a great time to learn new skills, experiment without much worry. A game jam creates a safe space for video game professionals of all levels and skills to experiment and create, bringing together developers, artists, musicians, storytellers and more!"



Akshat Sinha, Unity Instructor

Design and Play

Every week

What is a well developed game, if it is not fun? Throughout the bootcamp, we have many discussions about game design theories and frameworks, and tools one can use to make their games more fun and captivating.

How do you tell a story through a game? How can you make the player feel a certain emotion? How should you design the player's journey and progression? These are some of the questions that are answered through our design theory lessons.

Each week starts with a game design theory. This will help you understand different ways to approach designing a game. Every Wednesday, we have a game design activity, where you are split into pairs or two/three and come up with a game idea based on a prompt (sometimes these game ideas can turn into full scale projects). Every day on the course also starts with an open discussion about the games industry, design related opinions, gaming preferences, etc.

Design Theories we go through:

Objectives, Obstacles and ToolsGameplay Loops (Primary,
Secondary, Tertiary)Bartle's Taxonomy of Player
TypesMechanics, Dynamics,
Aesthetics3Cs - Camera, Characters,
ControlsKPIs (Key Performance
Indicators) in games4 Keys 2 FunPrinciples of AnimationFlow Theory

Level Design 101

The Psychology of Game Design



Advancing in Unity

Four Weeks

This is the most intensive part of the course, we are back at it and embedding some serious Unity skills at this stage and also preparing you to be able to test games in development or nearing release. That's super exciting.

We will be covering further animations, introducing physics and pathfinding to add extra dimension to the games, we will then focus on the all important "polish" that you will be able to add to your game, and will need to do in an industry setting. We will also cover cross platform development, so you will be able to release your Capstone Project to multiple platforms. Wowsers. That's a lot!

Learning outcomes

- The full animation pipeline in Unity and Blend trees.
- Implementing dynamic character animations.
- Creating your first cutscene with animations, audio and effects using the Unity timeline and signals.
- Be able to control animations through script.
- Learning the art of framing and editing a sequence of animation.
- Creating a first person movement system from scratch using the Unity Character Controller.
- Understand what Raycasting is and how to implement it within Unity.
- Be able to use physics based joints and also create ragdolls.
- Understand finite state machines and Al navigation for NPC's using Unity's Navigation Mesh system.
- Using the High Definition Render Pipeline and exploring the post processing stack.
- Understand how games render lighting at a big scale with realism by using baked and realtime lights.
- Create and implement custom shaders using ShaderGraph.
- Creating Visual Effects using the VFX Graph and Particle System.
- Alternative use-cases of Unity and diving into the Augmented Reality development pipeline.
- Creating touch controls for mobile and conditional compilation of input systems.
- Using scriptable objects and learning about the New Unity Input System.







Capstone Project

Two Weeks

You and your team come together to emulate an indie studio that has a 2 week deadline. Thats the capstone project. You get to choose what the game is, what your role is going to be, how you manage your time, how you communicate with the team and how you manage your project.

Similar to the game jam, you would be presenting this project at the end of the two weeks. You would use everything you have learnt on the course to produce a polished game within the given time. Make sure you scope it right!

Learning outcomes

- Working to a dedicated timeline to complete a project.
- Managing time, communication and the overall project
- Adding visual/mechanical polishing, and accessibility to your game.
- Testing, iterating and bug fixing.
- Being able to present your project with a live demo, effectively communicating their idea to an audience.

Graduation

At the end of the two weeks you will be presenting everything you have done to this point and graduating from the Tech Educators Unity programme. It's not the end of our journey though, there's so much more in the community to explore.





Careers focus

Every Week

Every week we focus on careers and outcomes of our students. We understand that each student is different and so are their career aspirations, what relevant skills they join us with and where they want to take their career.

Our careers sessions continue to work on development, but also allow our students to view the world of industry and prepare for joining the tech community. We work on the soft skills needed to get a career in tech, as well as being joined by some of the industries best speakers, to explore what a career in tech really means.

Learning outcomes

- Articulate with some certainty the type of career path you would like to take as you step into the world of being a software developer.
- Finalise and cement any further reading and concepts that need to be defined and embedded.
- Understand and have visibility of your own strengths and areas for improvement as a developer.
- Have a fully formed CV & cover letter and be able to understand how to search for tech specific jobs and actively be applying for and attending interviews.
- Create a game development portfolio that showcases your best work and your process

Previous speakers work at....













GitHub 🔥 Adaptavist

"We have developed the entire career preparation program around our students and industry needs.

This is the time where we focus on embedding both the game development skills and soft skills like teamworking, project management, computer literacy and critical thinking and considering where this new knowledge can take our students."



You don't have to be a young smart hipster with the very latest macbook-pro to work in tech.



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