Unity Creative Core pathway

Teacher preparation guide



**What is Creative Core?**

Creative Core is a 10-week learning pathway and your next step towards becoming a Unity creator. This free learning path will teach you all the core elements you will need to bring your imagination to life with Unity. Once you’ve completed Unity Essentials as an introduction to the fundamentals of the Unity Editor, take this pathway to learn VFX, Lighting, Animation, Audio, UI, and other creative skills, no programming required.

**Key details**

A 10- to the 12-week learning journey that teaches Unity basics and is designed for anyone who wants to become familiar with creating games and real-time experiences in Unity.

**Scope of this document**

This teacher preparation guide accompanies the Unity Creative Core Pathway and will help you get ready to bring this curriculum into your classroom.

## **Table of contents**

[Teacher orientation](#_tkjo7tedwxf0) 2

[Design your educational experience](#_bpyel2z8oyjp) 4

[Getting started checklist](#_ckt6n6w79l43) 8

## **Teacher orientation**

| **1a. Familiarize yourself with the pathway content and available resources**  *For a detailed breakdown, see the Syllabus document* | |
| --- | --- |
| **Objectives of the pathway** | * Beginner Animation Systems * Beginner 3D Animation (Native Unity) * Beginner 3D Animation (Imported) * Beginner User Interface * Beginner Audio Design Principles * Beginner Audio Implementation * Beginner Prototyping * Beginner Job preparation * Absolute Beginner Design Process * Beginner Render Pipelines * Absolute Beginner Digital Citizenship * Absolute Beginner Research * Beginner Critical Thinking * Beginner Materials * Beginner Shader Scripting * Beginner Shaders * Beginner Lighting * Beginner Particles and Visual Effects * Beginner Unity Cameras * Beginner Post-Processing |
| **Pathway requirements** | * Mac or PC with standard mouse required (\* headphones recommended) * 2 weeks minimum |
| **Pathway structure** | * Lessons * Guided projects * Independent project * Quizzes |

| **1b. Understand who your learners are**  Unity Creative Core is a comprehensive entry point for anyone with basic Unity real-time engine knowledge or who has completed the Unity Essentials pathway. Depending on the profile and prior experience of your learners, you can use it to facilitate a range of different experiences to best meet their needs. | |
| --- | --- |
| **Learner age range** | **Delivery suggestion** |
| Lower secondary (middle school and junior high) | * Structured, facilitated sessions throughout that break down the self-paced technical instructions into sessions with extension opportunities to ensure the group keeps pace * Scaffolding and extension options mapped to those sessions will help provide differentiated learning experiences * The software installation/new user onboarding guidance is unlikely to be required for this age range |
| Upper secondary (high school) | * Independent completion of the self-paced technical learning content, with scaffolding and extension options to provide differentiated learning experiences * Facilitated research and discussion sessions on creator skills and real-time industry exploration * The software installation/new user onboarding guidance is unlikely to be required for this age range |
| Adult learners with no previous experience (higher, further, and casual education) | * Independent completion of the self-paced technical learning content, with extension options if appropriate * Facilitated research and discussion sessions on creator skills and real-time industry exploration |
| Adult learners with previous real-time engine experience  (higher, further, and casual education) | * Unity Essentials may be useful for reference, but it is not designed for target learners in this group |

## **Design your educational experience**

**2a. Adapting Unity Creative Core content for different teaching approaches and contexts**

This guide takes into account in-person, blended, and fully virtual educational settings, and the following table offers some guidance on adapting this learning experience for your teaching approaches and circumstances.

| **Facilitator-led** | The step-by-step and modular structure of the pathway allows for facilitator-led teaching.  As an instructor/facilitator for a learning experience based around Unity Creative Core, your most valuable contributions are likely to be:   * Facilitating discussion around the various topics and showcasing industry examples for context. * Questioning to consolidate and deepen understanding. * Troubleshooting participant technical issues. |
| --- | --- |
| **Flipped classroom/instruction** | Pre-class work can be assigned by tutorial or mission within the Unity Creative Core pathway. Presentations or peer review feedback on the personal projects sessions are also ideal for the flipped classroom. |
| **Asynchronous learning** | The Unity Creative Core pathway is a complete course with all relevant instruction presented in a mix of video and text. All resources required for a specific module are also linked under that module. This could allow for asynchronous learning where learners can go through the course at their own pace. We suggest combining this with peer review sessions or instructor check-ins to ensure everyone is on track and progressing. |

**Share your unique insights**

Whichever approach you decide on, make sure to share your own experience, insights, and perspectives with participants, and by providing this, you’ll help participants develop their understanding of the realities of game development and real-time applications.

| **2b. Review common pathway configurations** | | | | | |
| --- | --- | --- | --- | --- | --- |
|  | **Main tutorials** | **Guided project and quizzes** | **Independent projects** | **% teacher - led**  **% in-class** | **Relevant affordances and constraints** |
| ***1: Teacher- led*** | Teacher-led  In-class | Independent  In-class | Teacher-led  In-class | 80% teacher-led  100% in-class | Students can’t work at home  You want complete control  You feel confident w/ material or can spend time on training |
| ***2. Teacher- assisted*** | Video-led  In-class | Independent  In-class | Video-led  In-Class | 0% teacher-led  100% in-class | Students can’t work at home  You do not feel confident with material yet and/or do not have time for training |

| **2c. Determine your unique classroom affordances and constraints** | | |
| --- | --- | --- |
| **Available hardware?** | * In your classroom, do you have a way of projecting or displaying your own computer’s screen so that the entire class can see it?  *(“Yes” allows for* ***teacher-led in-class*** *or* ***video-led in-class*** *activities.)* | **Yes | No** |
| * Can a set of headphones be included at each computer station? *(“Yes” allows for* ***independent in-class*** *activities.)* | **Yes | No** |
|  |  |  |
| **Student work at-home?** | * Can all of your students access a computer that can run Unity outside of class time? This could include getting access to the computer lab outside of their normal class period. *(“Yes” allows for* ***at-home*** *activities.)* | **Yes | No** |
|  |  |  |
| **Experience with material?** | * *Do you either (a) have ~20 hours to dedicate to training and learning the material before the course begins or (b) already have a lot of experience teaching Unity and C#? (If “Yes,”* ***teacher-led*** *activities are an option for you. If “No,”* ***independent*** *or* ***video-led*** *activities may be best to start.)* | **Yes | No** |

| **2d. Determine how much of the pathway you should aim to complete** | | |
| --- | --- | --- |
| **Determine if you can finish the entire pathway.** | How many combined in-class hours and at-home hours (if any) will the students have to work on this course? | **\_\_\_\_ *weeks*** |
| The entire pathway takes approximately **10 weeks (40-50hrs)** to complete independently but can take longer in a classroom depending on class size, experience, amount of time given to work on personal projects, and other factors. How long do you think it would take for your class to complete the pathway? | **\_\_\_\_ *weeks*** |
| **Units or activities to exclude from curriculum**  **(if any)** | The Creative Core pathway consists of self-contained modules, throughout which learners develop a final project. You can choose to exclude certain topics, but this will have an impact on the final project. | **Yes | No** |

# Getting started checklist

| **3a. Set up the computer lab and method for students to submit their assignments** | | |
| --- | --- | --- |
| **Get Unity licenses** | * You can either (a) apply for a Unity Educational license through the [license grant program](https://unity.com/education/license-grant-program) or (b) have students create individual Unity IDs. |  |
| **Install Unity software in computer lab** | * Download [Unity Hub](https://unity3d.com/get-unity/download) and install Unity version 2020.3 LTS (including Visual Studio) on all of the computers in the lab, then test to make sure that (a) Unity opens successfully and (b) Visual Studio opens successfully. |  |
| **Set up a system for students to submit their work** | * Using your school’s LMS, Google Classroom, or other systems, make sure your virtual classroom is set up so that students can submit their work. Students can submit screenshots/screencasts of their projects (recommended) or submit .zip files of their Unity assets. * It is possible to use version control software like Github to track and evaluate students’ projects. |  |

| **3b. Prepare to teach and connect with a support community** | | |
| --- | --- | --- |
| **Schedule time for training**  **Connect with the Unity teacher community** | * Regardless of the pathway configuration you have chosen, it is recommended that you complete at least the first unit of the online pathway independently prior to the pathway start date. This will take approximately 1 hour. * If you intend to do any teacher-led activities, it is also strongly recommended that you complete that content in the online pathway independently prior to leading the students. |  |
| **Schedule time for training**  **Connect with the Unity teacher community** | * Click [this link](https://connect.unity.com/g/unity-teach-community) to register and join the teacher support community, where you can get help from experts and connect with other new teachers. |  |