Unity Creative Core pathway

Standards alignment

**International Society for Technology in Education (ISTE)**

*From the* [*ISTE Standards webpage*](https://www.iste.org/standards)*: The ISTE Standards are a framework for students, educators, administrators, coaches, and computer science educators to rethink education and create innovative learning environments.*

| **Domain** | **#** |  |  |
| --- | --- | --- | --- |
| **1**  **Empowered learner** | 1a | Students articulate and set personal learning goals, develop strategies leveraging technology to achieve them, and reflect on the learning process itself to improve learning outcomes. | ✓ |
| 1c | Students use technology to seek feedback that informs and improves their practice and to demonstrate their learning in a variety of ways. | ✓ |
| 1d | Students understand the fundamental concepts of technology operations, demonstrate the ability to choose, use, and troubleshoot current technologies, and are able to transfer their knowledge to explore emerging technologies. | ✓ |
| **3**  **Knowledge constructor** | 3b | Students evaluate the accuracy, perspective, credibility, and relevance of information, media, data, or other resources. | ◐ |
| 3c | Students curate information from digital resources using a variety of tools and methods to create collections of artifacts that demonstrate meaningful connections or conclusions. | ✓ |
| 3d | Students build knowledge by actively exploring real-world issues and problems, developing ideas and theories, and pursuing answers and solutions. | ◐ |
| **4**  **Innovative designer** | 4a | Students know and use a deliberate design process for generating ideas, testing theories, creating innovative artifacts, or solving authentic problems. | ✓ |
| 4b | Students select and use digital tools to plan and manage a design process that considers design constraints and calculated risks. | ✓ |
| 4c | Students develop, test, and refine prototypes as part of a cyclical design process. | ✓ |
| 4d | Students exhibit a tolerance for ambiguity, perseverance, and the capacity to work with open-ended problems. | ✓ |
| **5 Computational thinker** | 5a | Students formulate problem definitions suited for technology-assisted methods, such as data analysis, abstract models, and algorithmic thinking in exploring and finding solutions. | ◐ |
| 5c | Students break problems into component parts, extract key information, and develop descriptive models to understand complex systems or facilitate problem-solving. | ✓ |
| **6**  **Creative communicator** | 6b | Students create original works or responsibly repurpose or remix digital resources into new creations. | ✓ |
| **7**  **Global collaborator** | 7b | Students use collaborative technologies to work with others, including peers, experts, or community members, to examine issues and problems from multiple viewpoints. | ◐ |

## Certified User: Artist exam

The [Unity Certified User Artist exam](https://certiport.pearsonvue.com/Certifications/Unity/Certified-User/Certify) will test the basics of 2D and 3D digital artistry within Unity software to create interactivity in games, apps, AR/VR, and other experiences. The exam objectives are aligned with current industry standards set by professionals and educators. Individuals will be expected to have at least 150 hours of Unity software use and training to obtain this certification.

| **Domain** |  | **Tutorial** |  |
| --- | --- | --- | --- |
| **Asset management** | Import assets including but not limited to settings for FBX, OBJ and associated textures. | [Get started on your guided project](https://learn.unity.com/tutorial/get-started-on-your-guided-project?uv=2020.3&pathwayId=61a65568edbc2a00206076dd&missionId=61a64fafedbc2a0021b4614d) | ✓ |
| Import and configure assets from the Unity Asset Store. | [Get started on your guided project - Unity Learn](https://learn.unity.com/tutorial/get-started-on-your-guided-project?uv=2020.3&pathwayId=61a65568edbc2a00206076dd&missionId=61a64fafedbc2a0021b4614d) | ✓ |
| Slice sprite sheets for use in a 2D scene including but not limited to using the default Sprite editor and 9-slicing. |  | x |
| Identify mesh components including vertices, polygon faces, and edges. | [Enhance your prototype with ProBuilder](https://learn.unity.com/tutorial/enhance-your-prototype-with-probuilder?pathwayId=61a65568edbc2a00206076dd&missionId=61a617feedbc2a00253d67ee#619e860dedbc2a4d040d98d1)  [Prototyping](https://learn.unity.com/mission/creative-core-prototyping?uv=2020.3&pathwayId=61a65568edbc2a00206076dd)  [Explore meshes and rendering](https://learn.unity.com/tutorial/explore-meshes-and-rendering?uv=2020.3&pathwayId=61a65568edbc2a00206076dd&missionId=619f9b6cedbc2a39aabd7b1e) | ✓ |
| Create keyframes and change tangents in the Curve editor using the Animation window. | [Animations](https://learn.unity.com/mission/animation?uv=2020.3&pathwayId=61a65568edbc2a00206076dd) | ✓ |
| Create, modify and utilize Prefabs. | [Create an environmental Particle System](https://learn.unity.com/tutorial/create-an-environmental-particle-system?contentId=61a649d9edbc2a07a7e9a571&missionId=61a6488fedbc2a0020607444&pathwayId=61a65568edbc2a00206076dd&tab=overview&uv=2020.3) | ✓ |
| **Lighting, cameras, materials and effects** | Modify materials using the Standard Shader and editing properties including but not limited to specular, transparency, normal, and albedo. | [Shaders and materials](https://learn.unity.com/mission/creative-core-shaders-and-materials) | ✓ |
| Identify basic lighting including but not limited to shadows, light settings, and light shapes such as directional, area, spot, and point. | [Lighting](https://learn.unity.com/mission/creative-core-lighting) | ✓ |
| Utilize single camera set up including but not limited to isometric vs. standard, camera component, background, culling masks, clipping planes, field of view (FOV), etc. | [Cameras](https://learn.unity.com/mission/creative-core-cameras) | ✓ |
| Given a scenario, determine the appropriate rendering pipeline that should be used. | [Get started on your guided project](https://learn.unity.com/tutorial/get-started-on-your-guided-project?pathwayId=61a65568edbc2a00206076dd&missionId=61a64fafedbc2a0021b4614d#619fbedaedbc2a5554f0b95b) | ✓ |
| **Scene content design** | Utilize Transform tools and the Transform component in the Inspector. | [Enhance your prototype with ProBuilder](https://learn.unity.com/tutorial/enhance-your-prototype-with-probuilder?uv=2020.3&pathwayId=61a65568edbc2a00206076dd&missionId=61a617feedbc2a00253d67ee#619e860dedbc2a4d040d98d1)  [UI](https://learn.unity.com/mission/creative-core-ui?uv=2020.3&pathwayId=61a65568edbc2a00206076dd) | ✓ |
| Create prototype scenes using Unity primitives and/or low poly meshes utilizing white box/grey box techniques. | [Prototyping](https://learn.unity.com/mission/creative-core-prototyping?uv=2020.3&pathwayId=61a65568edbc2a00206076dd) | ✓ |
| Create and edit a landscape with materials utilizing the Terrain tool including but not limited to mask maps, texture painting, and diffuse properties. | [Enhance your prototype with Terrain](https://learn.unity.com/tutorial/enhance-your-prototype-with-terrain?uv=2020.3&pathwayId=61a65568edbc2a00206076dd&missionId=61a617feedbc2a00253d67ee) | ✓ |

## **Certified Associate: Artist exam**

Showcase your mastery of core Unity skills and concepts to obtain your first professional role as a Unity 2D and 3D artist with the [Unity Certified Associate Artist exam](https://unity.com/products/unity-certifications/associate-artist)

| **Domain** |  |  |  |
| --- | --- | --- | --- |
| **Asset management** | Import and adjust Import Settings on assets including but not limited to assets such as rigged objects, tangents, associated textures, and target/blend shapes . | * [Get started on your guided project](https://learn.unity.com/tutorial/get-started-on-your-guided-project?pathwayId=61a65568edbc2a00206076dd&missionId=61a64fafedbc2a0021b4614d#619fbedaedbc2a5554f0b95b) * [Animation](https://learn.unity.com/mission/animation) * [Shaders and materials](https://learn.unity.com/mission/creative-core-shaders-and-materials?uv=2020.3&pathwayId=61a65568edbc2a00206076dd) * [Get started with lighting](https://learn.unity.com/tutorial/get-started-with-lighting) * [Prototyping](https://learn.unity.com/mission/creative-core-prototyping?uv=2020.3&pathwayId=61a65568edbc2a00206076dd) * [Enhance your prototype with Terrain](https://learn.unity.com/tutorial/enhance-your-prototype-with-terrain?uv=2020.3&pathwayId=61a65568edbc2a00206076dd&missionId=61a617feedbc2a00253d67ee) | ◐ |
| Modify assets using the Inspector including but not limited to scripted components, animation, and materials. | * [Get started on your guided project](https://learn.unity.com/tutorial/get-started-on-your-guided-project?pathwayId=61a65568edbc2a00206076dd&missionId=61a64fafedbc2a0021b4614d#619fbedaedbc2a5554f0b95b) * [Animation](https://learn.unity.com/mission/animation) * [Shaders and materials](https://learn.unity.com/mission/creative-core-shaders-and-materials?uv=2020.3&pathwayId=61a65568edbc2a00206076dd) * [Get started with lighting](https://learn.unity.com/tutorial/get-started-with-lighting) * [Prototyping](https://learn.unity.com/mission/creative-core-prototyping?uv=2020.3&pathwayId=61a65568edbc2a00206076dd) * [Enhance your prototype with Terrain](https://learn.unity.com/tutorial/enhance-your-prototype-with-terrain?uv=2020.3&pathwayId=61a65568edbc2a00206076dd&missionId=61a617feedbc2a00253d67ee) | ◐ |
| Import and configure assets from the Unity Asset Store and/or custom packages. | * [Introduction to Creative Core](https://learn.unity.com/mission/introduction-to-creative-core?uv=2020.3&pathwayId=61a65568edbc2a00206076dd) | ✓ |
| Utilize the Sprite editor, Tilemaps, Unity UI, and UI Elements. | * Tilemaps - not covered. Look at:   [Introduction to Tilemaps - Unity Learn](https://learn.unity.com/tutorial/introduction-to-tilemaps)   * Sprite Editor - not covered. Look at:   [Introduction to Sprite Editor and Sheets](https://learn.unity.com/tutorial/introduction-to-sprite-editor-and-sheets)   * [UI](https://learn.unity.com/mission/creative-core-ui) | ✓ |
| Utilize Animator functions including states, parameters, transitions, and blend trees. | * [Animation](https://learn.unity.com/mission/animation) | ✓ |
| Utilize level of detail (LOD). |  | x |
| Given a scenario, optimize scene art assets for different build targets including standalone, mobile and web. | * [Get started on your guided project](https://learn.unity.com/tutorial/get-started-on-your-guided-project?pathwayId=61a65568edbc2a00206076dd&missionId=61a64fafedbc2a0021b4614d#619fbedaedbc2a5554f0b95b) * [Lighting](https://learn.unity.com/mission/creative-core-lighting) * [Shaders and materials](https://learn.unity.com/mission/creative-core-shaders-and-materials?uv=2020.3&pathwayId=61a65568edbc2a00206076dd) * [Create and publish WebGL builds](https://learn.unity.com/tutorial/creating-and-publishing-webgl-builds) | ✓ |
| **Lighting, cameras, materials and effects** | Create and edit materials including but not limited to different shaders such as different components of the Shader Graph. | * [Shaders and materials](https://learn.unity.com/mission/creative-core-shaders-and-materials?uv=2020.3&pathwayId=61a65568edbc2a00206076dd) | ✓ |
| Identify advanced lighting including but not limited to soft shadow width, bias, flares, halos, occlusion layers, and light shapes. | * [Get started with lighting](https://learn.unity.com/tutorial/get-started-with-lighting) | ✓ |
| Given a scenario, determine the appropriate lighting techniques including global illumination, lightmapping, baking, reflection probe, and light probe. | * [Get started with lighting](https://learn.unity.com/tutorial/get-started-with-lighting) | ✓ |
| Create, modify, and optimize particles and post-processing effects. | * [Get started with post-processing](https://learn.unity.com/tutorial/get-started-with-post-processing?pathwayId=61a65568edbc2a00206076dd&missionId=61a64513edbc2a1317c57aa3) | ✓ |
| Utilize multiple cameras including but not limited to split-screen gaming, maps, map overlays, etc. | * [Get started with cameras](https://learn.unity.com/tutorial/get-started-with-cameras) | ✓ |
| Given a scenario, determine the appropriate scriptable rendering pipeline that should be used including but not limited to URP and HDRP. | * [Select your guided project](https://learn.unity.com/tutorial/select-your-guided-project) | ✓ |
| **Scene content design** | Create and implement assets using built-in 2D and 3D game objects as well as ProBuilder. | * [Prototyping](https://learn.unity.com/mission/creative-core-prototyping?uv=2020.3&pathwayId=61a65568edbc2a00206076dd) | ✓ |
| Create finished-level art using terrain function, finished models, and colliders. | * [Prototyping](https://learn.unity.com/mission/creative-core-prototyping?uv=2020.3&pathwayId=61a65568edbc2a00206076dd) * [Enhance your prototype with Terrain](https://learn.unity.com/tutorial/enhance-your-prototype-with-terrain?uv=2020.3&pathwayId=61a65568edbc2a00206076dd&missionId=61a617feedbc2a00253d67ee) | ✓ |