# Game Programming 101 – Unity Specifics

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|  | **Intro to Unity UI**   Unity (<https://unity3d.com/>) is one of our top choices for game development, allowing us to make PC, Xbox 360/One/X, PS3/4/Pro, Android, and IOS games with the same source code. We will be using C# as our programming language. C# is a commonly used language that is part of Microsoft .Net, one of the preeminent programming platforms for business application and game development. We will explore the Unity UI by examining a simple game called Apple Picker – using baskets to collect dropped apples: |
|  | **Castle Shot**  We will work on replicating the core components of ‘Angry Birds’ in Unity, with a slingshot and castle: |
|  | **3D First Person**  We will explore how 3D / first / third person perspective games are created in Unity: |

## Homework

Students will be expected to:

1. Attend all 3 sessions if possible
2. Have access to Unity outside of class (available for free here: <https://store.unity.com/> for personal and educational use)
3. Complete 3 homework assignments associated with class:
   1. Apple Picker Mods (using if statements and loops) – 1 to 2 ½ hours
   2. Castle Shot Mods (using physics and time arithmetic) – 2 to 3 ½ hours
   3. Unity Assets Mods (using 3D modeling and Object Oriented Programming (OOP)) – 2 to 3 ½ hours

## More about Unity

You can learn more about how Unity teaches STEM skills and Common Core concepts here: <http://response.unity3d.com/unity-educator-toolkit-whitepaper?channel=web&eventname=ISTE-2016>