For the first half of class, a series of weekly exercises will introduce different topics in Unity including 3D models, textures, shaders, lighting and animation. We'll be writing code in C#, Unity’s preferred language, but students may choose to use JavaScript as well. For the second half, students will work on a larger final project that conveys some kind of narrative through interactions in a virtual space. Group collaborations are encouraged.

Students are encouraged to adapt source material from a broad range of sources. We’ll look at off-the-shelf motion capture animation from sites like Mixamo, creating models using 3D scanning with a Kinect and middleware solutions from the Unity Asset Store.

Week 1 - Your first world: Intro to Unity
Week 2 - Instantiate and Destroy: Scripting Fundamentals
Week 3 - Ooooh Shiny: Materials and Lighting
Week 4 - Sonic Boom: Programming Sound in Unity
Week 5 - Making Things Move: Animating with Keyframes and Code
Week 6 - Let’s Get Physical: PhysX, Unity’s Physics Engine
Week 7 - Making Kinections: OSC in Unity
Week 8 - Import Reality: 3D Scanning assets
Week 9 - Explosions in Space:Particle Systems and Special FX
Week 10 - Let’s Take a Walk: Character Animation and Motion Capture
Week 11-14 - The Final Countdown