

Game in Architecture



Faculty: Dr. MT Chang

Semester: Fall 2022

OVERVIEW

The world of architecture is too vast. With the fast-paced digital environment, new discovered techniques and concepts are inevitable as consumers continue to look for more innovative ideas.

To plan and create a residential or commercial real-estate or any type of construction is not an easy procedure. Developers, architects and constructors are used to rely on 3D graphics and animation as these tools gives an overview of design in the most-realistic way. In fact, a difference between a rendering and an actual photo of the room is quiet hard to distinguish as both are somehow similar. But what if those 3D renderings will take one step further and people can go inside of it? Today, the architectural industry can cross the rift between an imagination and reality by integrating an immersive experience of Virtual Reality.

For architects and visualization specialists, Unreal Engine offers the creative freedom to explore, evaluate, validate, and present your designs in a high-fidelity real-time environment.

This course will help students to create a game environment by using Unreal Engine technology. Step by step tutorials will help students to learn this creative tool. At the end of this course, students are able to produce a game environment of their choice of architecture to view their creation or possible even by using Oculus VR headset.

REQUIRED ACCESS TO SOFTWARE & HARDWARE:

You will need access to a Windows PC with a current version of Unreal Engine 4/Twinmotion to complete the course requirements. You must have, before taking this course, a good understanding of how to use Microsoft Windows computers and basic Windows software such as internet browsers, email clients, and image viewers. You must have access to the Internet to complete this course, as well. If you are not comfortable with typical Windows hardware and software or Internet usage, you should take a remedial course in basic PC use before undertaking this one. This course is a in person course. It does require your presence, and you need to finish course activities before every deadlines.

It is entirely students' responsibility to setup their own computer with software tools to complete the assigned work. It is student's responsibility to obtain software for this class' use. You also need a capable computer to do our class activities. I am NOT responsible of setting up your computer, or tech support your software. Since this class is a computer course, and you may use the cadLAB to do your assignments.

Students are responsible for making back-up copies of their work and keeping track of them. Work that is not submitted on time because of "whatever" reason will be penalized as late. Our official class cloud space is: Google Drive. It is free, and use ssaonlinecourse@gmail.com to share your files with me. You will NOT able to complete this course without file sharing with me!

Late assignment submission will be graded ZERO. The final project is barred from any medical emergency.

TYPE OF COURSE:

In Person Course with Digital Content

Software in Spotlight

Unreal Engine 4

(windows only) or

above, and you can

download a copy from

Unreal website.

Twinmotion 2022 (windows only) or above.

- Adobe

Photoshop or
use an online
one such as:
<https://pixlr.com/editor/>

Textbook

Everything available digitally. This course is part of CCNY ZERO textbook initiative.