IMDM227 Introduction to Computational Media

IMDM227 is an introduction to practices in computational media as they pertain to the implementation and creation of immersive media pipelines, including virtual and augmented reality applications. The course will cover this subject matter from both technical and aesthetic viewpoints. Students are introduced to basic programming constructs, digital asset creation processes, algorithms, and data structures associated with immersive media production pipelines. There will be an emphasis on programming and software design, including the interfaces between hardware and software in multimedia devices, and fundamental graphics and sound rendering, all in support of creating immersive experiences. Development will take place across multiple platforms, for example, “standalone executable” platforms (such as TouchDesigner), asset creation platforms (such as Autodesk Maya), and game engine platforms that support multiple experience paradigms including XR (such as Unity).

Prerequisites: minimum of C- in IMDM101, IMDM150, (CMSC131 or IMDM127)