Advanced CAD/BIM/3D Visualization
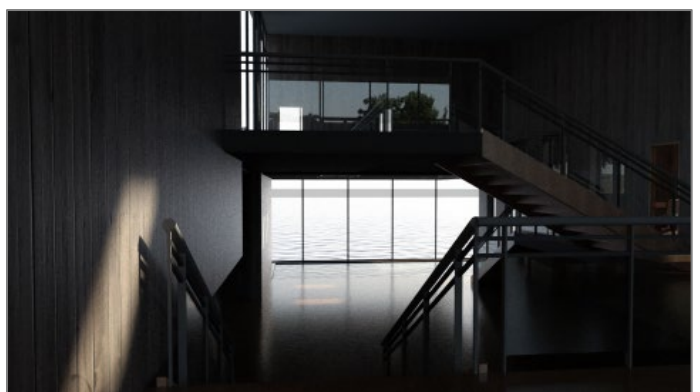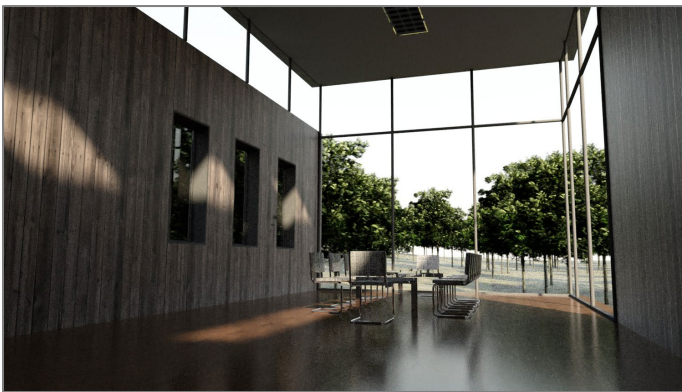# Carnegie Mellon University, School of Architecture
Fall 2021, 48-568 (9 units)

This course is designed to introduce a student to 3D software tools, including AutoCAD 3D, Revit Architecture, and 3D Studio MAX. Building information and parametric modeling, materials, lighting, rendering, and animation concepts allow students to create integrated CAD/BIM projects, 3D video animations, and realistic renderings.

The course objectives are to develop an understanding of how to properly set up and manipulate 3D projects integrating software applications, replicating real world projects in leading architectural, lighting, and design firms; learn how to create details 3D CAD models using surfaces and solids; learn about BIM parametric modeling using Revit Architecture; and learn how to apply materials, lighting, and rendering to CAD, BIM, and 3D studio objects.

At the conclusion of this course, students will have projects and animations created and architectural CAD/BIM standards outlined. Students should have some familiarity with basic AutoCAD 2D commands. Those who don't have AutoCAD 2D knowledge can contact the professor to arrange for on-line tutorials that need to be completed before classes begin.

This course will be taught asynchronously via video lectures and other reading materials. In person and remote office hours will be held weekly.