Buildings today are routinely developed, completed and virtually constructed before even moving on to the site. Building designers are increasingly seen by their employers as virtual constructors. Graduates entering the workforce, profession and industry, have to be prepared to face the new challenges of virtual design and construction (VDC.) In fact, construction firms are the primary employer of recent architecture graduates. Due to several coexisting forces, including disruptive technologies, work processes and economics, the once distinct design and construction phases are increasingly seen as merging. Exploring the implications for construction both virtually and out in the field, this course will look firsthand at the implications for design professionals – offering an in-depth look at how leadership and management of the construction phase changes due to the introduction and implementation of digital technologies and collaborative work processes in both the workplace and on the jobsite. Emphasis will be on methodologies for managing risk, navigating the construction process, and successfully managing people, processes and the project.

This course explores questions confronting design professionals entering practice:

• What does it mean to manage and lead teams in this new work environment?
• How to collaborate to get the best out of teammates at the time of greatest impact?
• What does the merging of design and construction mean for the emerging professional and practicing architect?
• Does the merging of design and construction mark the return of the master builder, virtual master builder or the virtual master builder team?
• How to recognize employment opportunities for architect positions that didn’t exist even 5 years ago

Delivery methods: Lectures, class discussions and site visits. Prior experience with Revit recommended but not required. Deliverables: Presentations, papers and/or parametric models. Class meets Weds 9:00-11:50AM

Texts: Construction Management JumpStart: The Best First Step Toward a Career in Construction Management 2nd ed.; BIM and Construction Management: Proven Tools, Methods, and Workflows; BIM and Integrated Design: Strategies for Architectural Practice

Instructor: Prof. Randy Deutsch AIA, LEED-AP, is an architect, educator and author responsible for the design of more than a hundred large-scaled, complex building projects. A BIM strategist and IPD advocate, his writing and design work have appeared in DesignIntelligence, ARCHITECT and Architectural Record among other industry periodicals. He is a recipient of the AIA Young Architect Award-Chicago.