



WK8/DAY .15

ARCH 2330 BUILDING TECH III

AGENDA: Structure – Steel: Columns, Beams & Trusses

**Today's Class:** *Revit: Creation of upper building structure using steel columns, beams and trusses.  
Layout of structural drawings*

*Guided class tutorial on steel & concrete structural elements & trusses followed by each student working on the development of structure through their entire building. Setup of structural drawings on titleblocks.*

### Agenda & Attendance (Class Time 3 hours)

#### Activity 1

- Introduction to Columns, Beams and Trusses
  - Student Q & A
  - What role do columns beams and trusses serve?
    - Structural support
    - Transferring loads
  - How are they framed?
    - Developing details
    - Understand how each element of a detail serves a purpose
    - First identify something the detail needs to do (connect a steel column to concrete), then respond to this need accordingly
  - Searching for detail references on the internet : (various searches for details)
    - *Steel column detail drawings*
    - *Steel column and beam connections*
  - Evaluate a detail to understand if it works well or not – be skeptical and critical

#### Activity 2 (Revit)

- Steel Structure (Transition to steel from first floor up)
  - Create Steel columns and beams
  - Concrete floor on steel deck
  - Create steel trusses

#### Activity 3 (Revit)

- Begin layout of steel details

#### Wrap-Up and Deadlines

- **Complete upper steel structure before next class**
- **Begin layout and development of steel details**
- **Work on wall section**