

PB AA

Passive Building - Active Architecturegoes vertical



"Hyperion" Sequoia 379 feet



"Dominion Center" 732 feet



"Marina City" 587 feet

The studio will focus on the concept of "passive" buildings as an emerging trend among mid- and high-rise buildings of up to 30-storey height. The design of a mix-use tower will provide an opportunity to combine environmental and performative issues, and advanced practice.

Initially, the students will conduct a survey based on case studies about the principles of "passive" buildings and the main construction types and materials currently used including hybrids.

Wood as a recently appraised material will be compared to the classical "steel" and "concrete" based technologies. By focusing on the advantages of wood as a building material we are acknowledging the fact that no other material can be produced with a smaller carbon footprint prior to construction. The potential to re-cycle as opposed to down-cycle the building at the end of its lifespan is obvious.

The class will be challenged to overcome the obvious lack of architectural quality associated with many of the passive designs in the past.

Alternate sites in different climate zones (for the same program) will be researched.

From the beginning, the students will demonstrate the benefits of their design strategy through the application of state of the art technology. Using "Ecotect", "Ecodesigner", Green Building Studio", or equally relevant software the energy consumption of the designs will be calculated throughout the design process and finally verified.

Field Trip:

An excursion to meet leading experts and alumni working on high-rise buildings - Denver, Chicago or Seattle - will be offered.