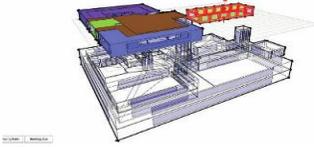


ARCH 8803 AB Advanced topics in Building Performance Assessment

MON 10-12 (lectures)+ one hour weekly training tutorials (TBD)
HINMAN 228

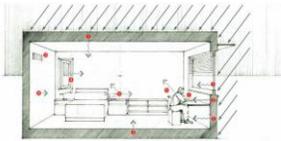
Godfried Augenbroe Fried@gatech.edu



This course is primarily aimed at 2nd year MS-HPB students and PhD-HPB students with an interest in practical applications of advanced simulation. It builds on two pre-requisites:

- ARCH 6226 AG: Green Construction (Fall)
- ARCH 6241: Building Simulation in Design Practice (Spring)

These courses are prerequisites for this course.

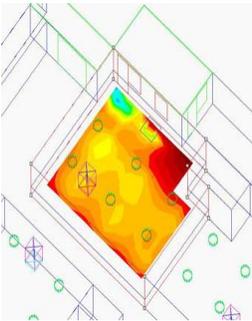


The goal of the course is to deepen the students' knowledge and skills in building (energy) performance assessment via real life projects done in a project based learning setting. Projects may originate from external parties (AE firm) that will then actively contribute as problem owner in the course. The selected projects differ every year based on demands of the market and relevant developments in the research and tool domain.

Depending on size of the projects the class will deal with 3-4 projects.

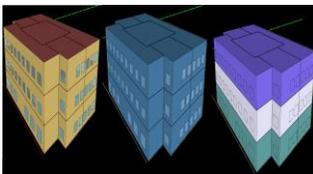
Course Structure

The class is conducted in a PBL style. The problem is introduced and targets are assigned. The class works in (sub)teams that study different aspects and combine their findings in a final report. The teams report and get guidance in weekly sessions, and organize working sessions as needed.



Grading

Grading will be based on the team project reports (one per module) and the identified contributions by each team member. The main criterion is the efficient application of modeling in real life projects, with emphasis on how the HPB discipline integrates with other disciplines. All project reports should focus on delivering practical and meaningful solutions, rather than on



Provisional Projects in 2018:

1. Performance Uncertainty and financial risk studies with @Risk
2. Co-Simulation approaches: Experimental hybrid ventilation
3. Occupancy studies: how to model what we don't know
4. Urban Energy studies: transactive energy modeling