HIGH PERFORMANCE ENVELOPES

Instructor  Sean K. Scott, Adjunct Instructor  
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Time / Place  U/H 5:00-6:50, WSB room TBA

Credits  4 Credit Hours, Fulfills Advanced Technology Requirement

Content  
- Envelope Programming
- Massing, Solar Envelope, Orientation
- Construction
- Acoustics
- Movement
- Materials
- IPD +IDP, Envelope Commissioning, System impacts
- Building typologies
- Building Re-use
- Alternative systems
- Envelope Energy Modeling
- Performance Criteria + Climate

Main Objectives  
- Define, and discuss factors of High Performance Envelopes (HPE).
- Survey larger concepts / tools available to create HPE and the HPE role within sustainability thoughts.
- Review alternative HPE systems.
- Discuss design overlays such as existing buildings, historic status, and typologies related to HPE.
- Understand constructability impacts on detailing.
- Understand how to program an envelope.
- Understand how various scales and systems (financial, performance, construction, structural, MEP, materials, etc.) interrelate and inform each other as an HPE is developed.
- Understand the impacts of various team structures and deliveries on the HPE.

Format  
The course will include lectures at the beginning of the week, followed by a related work session or field trip. Eight assignments will provide an opportunity to explore the principles covered in the lectures through drawing, research, application, and detailing. Every opportunity will be taken to integrate as seamlessly as possible with the studio courses underway or previous studios for those students not currently enrolled in a studio.