

Draft Self Assessment Objectives based on Spring 2013 outcomes
6.4.13

- **Challenge:** Review of studio outcomes as seen in drawings, models and presentations shows inconsistency across studio sections.

Objective: Designate one faculty among the group teaching in a multi-section studio as a convener to meet with the other faculty assigned to the studio the semester prior and review the expectations for content in the student's documentation.

- **Challenge:** Drawings are frequently incorrect. Plans don't correspond with sections or elevations, dotted lines indicating overhead planes missing, stairs incorrectly drawn, elevations incorrectly drawn.

Objective: develop student's knowledge and capability to conceive of their work as a three-dimensional whole, with drawings being views of that whole. This may be developed through exercises in orthographic projection, the application of BIM tools, or development in physical models.

- **Challenge:** Technical aspects are often missing from student work, or seem completed for their own sake, not as a part of the overall design process.

Objective: Task the convener to clarify required aspects including:

- **Life safety:** floor plans must show the appropriate number and dimension for means of egress from all floors above and below grade.
- **Accessibility:** drawings must show (in plans, sections, site plans) appropriate clearances, slopes, mounting heights, rail protections, parking to meet ADA. See <http://www.access-board.gov/adaag/html/adaag.htm> for graphic references.
- **Structure:** framing diagrams for each floor or typical floor including roof and foundation. Diagrams must indicate type of system and approximate depth and direction of span.
- **Systems:** drawings must show the appropriate number and dimension for vertical air-shafts, mechanical rooms, roof mounted or site mounted equipment and single line diagram for distribution strategy communicating supply, return, and approximate dimension of each. Exterior views must show exhaust and fresh air intake louvers or sources.
- **Thermal and moisture protection:** drawings must include a wall section that makes clear the strategy, dimension, and materials for managing heat flows, bulk moisture, and water vapor in the wall and roof. R-values for B/CS (zone 4) are 30 for roof, 13 for wall, 13 for floor, 6 for basement wall, 0 for slab edge, 6 for crawlspace.
- **Solar control:** drawings must show the quantity of glazed vs. unglazed wall area and be in compliance with building codes for quantity (40%) or include a simulation proving similar performance. Functional zoning of plans and shading designs must recognize West, South, East exposures.

Resources: Edward Allen's Architects Studio Companion, Kwok & Grondzik's Green Studio Handbook, Sand's Wall Systems, mjobrien.com's http://mjobrien.com/materials_and_methods_lecture_notes

- **Challenge:** Projects frequently show an additive approach to problem solving where initial concepts and principles are compromised, eroded by a design process that sees challenges as discrete solutions to be solved discretely, thus weakening the overall work.

Objective: develop faculty agreement to place emphasis on process shortcomings when discrete discovery-solution approaches are observed. Develop faculty agreements to seek out shortcomings early, and advocate a recasting of the entire scheme in terms of the problems and solutions while holding to the initial concepts. Develop faculty agreement on problem seeking, conceptual elegance, and incorporation of professional concerns for public health, safety, access, and conservation.

- Challenge: Curriculum stability over time has assumed a knowledge of building materials and methods in students, the product of their design studios indicates this is an erroneous judgement.

Objective: Long Term: Advocate resource allocation for the development of self-guided, digitally-evaluated course modules. Short Term: incorporate fundamentals of materials, methods and building envelope systems into the lecture component of ARCH 605, ARCH 606.

- Challenge: Systems course is overfilled with content preventing incorporation of basic building systems information as required by NAAB.

Objective: Long term: work with faculty and administration to make a reconceptualization of this class possible. Advocate resource allocation for the development of self-guided, digitally-evaluated course modules to shift faculty-student content from information presentation to synthesis and project-centered learning. Short term: incorporate basic building systems content into lecture component of ARCH 606.