COLUMBIA UNIVERSITY
Graduate School of Architecture, Planning and Preservation

Architectural Technology 5 Co-Directors: Jay Hibbs
Spring 2015 David Wallance

SYLLABUS

This course is entitled Architectural Technology 5 (AT-5). It might be subtitled Intentions and Technology. AT-5 is a tech class in which your design skills are an essential tool that you will use to synthesize the various technical systems of a contemporary building type into a coherent expression of an architectural intention. Technical rigor is the pre-condition for design. If it doesn't work, you will have to redesign it until it does.

Technical rigor does not mean that your design concept should necessarily express a technological image (although you may choose this as an intention), nor does it mean that technology is an end in itself. Your choice of intention, and your ability to articulate it, will determine your choice of technology.

In order to focus your attention on the problem of expressing an architectural intention through the choice and development of building technology, we have created a design problem in which many of the design issues with which you have been preoccupied in your other studio work are eliminated. The program is a speculative loft building for the industrial arts. Conceptually modeled after the "Hotel Industriel" building type, the building is intended to provide open commercial loft space for artisan workshops and light manufacturing concerns. Floors are to be sub-dividable for multiple tenants. The site is abstracted and minimal in context. The only important contextual attributes are latitudinal and longitudinal coordinates, and compass (solar) orientation. Building volume and floor to floor heights are pre-established. The time is the present.

Building technology is continually evolving, and many materials and methods that were once ubiquitous are now anachronistic. By the same token, future possibilities in technology have not yet arrived, and your design cannot presume that a technology will be invented in order to provide support for your intention. This is not to say that the revival of lost craft skills or technical innovation is not a valid aspiration, but only that it is not a part of the pedagogical method of this course. Innovation within existing technical means, however, is not discouraged.

Similarly, the industrial loft building program has been selected with the aim of limiting interior spatial development to that which you achieve by the articulation of the building envelope and structural system, and to a lesser (but still important) extent, environmental systems.

The weekly course schedule follows on page 2.

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wk 1	Introductory Lecture Curtain Wall Lecture	Design problem assigned. Divide into groups.
wk 2	Structural Lecture HVAC Lecture	Groups formed.
wk 3	Studio: Working session	Present Technical Exercise #1 (sketches) First studio discussion & crits
wk 4	Studio: Working session	Technical Exercise #2 (systems) Design crits
wk 5	Studio: Working session	Technical Exercise #3 (structural analysis) Design crits
wk 6	**Studio: Mid-term Review**	Design development drawings completed for mid-term review.
wk 7	Studio: Working session	Technical Exercise #4 (curtain wall) Design crits
wk 8	Studio: Working session	Technical Exercise #5 (environmental conditioning) Design crits
wk 9	Spring Recess – No class	
wk 10	Studio: Working session	Design crits
wk 11	Studio: Working session	Design crits
wk 12	Studio: Working session	Final Crit
wk 13	Final Documentation due by 5pm	Critics review and red-line drawings over following week.
wk 14	No Class Scheduled	Pick up final red-lined drawings by 5pm.
	Final Review	Complete/correct final drawings for the review. Technical report due.