

# DOCTOR OF PHILOSOPHY IN ARCHITECTURE WITH SPECIALIZATION IN TECHNOLOGIES OF THE BUILT ENVIRONMENT

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52 credit hours beyond the master's degree

Written qualifying examination

Comprehensive examination

Dissertation and oral defense

The Doctor of Philosophy (Ph.D.) in Architecture program is for those individuals who desire to pursue careers in academia and/or in research-based professional practice. As the most advanced academic degree, the Ph.D. recognizes both the highest level of expertise and the production of significant novel work. The program demands a deep understanding of architecture's history and its contemporary intellectual terrain, a command of advanced research methodologies, and a commitment to critical inquiry that extends its frontiers.

The program begins with advanced coursework and culminates in a dissertation that is the result of extensive, original, and rigorous research and thought. The Ph.D. program grows out of the school's collective commitment to progressive research that is grounded in the realities of the workplace and devoted to contesting existing values and ideologies. Doctoral students will participate in the experiments of design studios and will later help guide these efforts in mentoring roles, helping to shape the debate within the college through their involvement in the college's "cloud studio."

## Admission Requirements

An applicant to the doctoral program must hold a professional Master of Architecture degree (M.Arch.) from an NAAB-accredited U.S. university or the equivalent. Candidates who have not completed the required professional M.Arch. degree may apply for either the Master of Architecture or the Master of Science in Architecture program at Illinois Institute of Technology to fulfill that requirement, as a non-terminal program of studies preparatory for the doctoral program.

The applicant should meet all entrance requirements of the university's Graduate College, plus a minimum cumulative grade point average of 3.5 on a 4.0 scale, a TOEFL score of at least 80/550, and at least three letters of recommendation from immediate supervising professors. The applicant should also submit a statement of purpose indicating a subject of study or research work and should provide a portfolio demonstrating the qualities of his or her accomplishments and expertise.

## Degree Requirements

The program requires a minimum of 52 credit hours usually completed in three-and-a-half to four years beyond the M.Arch. degree. The majority of the coursework will be selected from the curriculum with the College of Architecture, though students are encouraged to have their research find connections to other doctoral programs at the university.

Upon completion of the first academic year, the candidate will be required to pass a written qualifying examination before he or she will officially be admitted to Ph.D. candidacy. At the end of the program, the candidate will take a final examination which will consist of an oral presentation and defense of the dissertation. Current areas of study include high-rise and long-span buildings, technology applications, energy conscious design, emerging urbanisms, housing, history/theory, and advanced computer applications. Work for the Ph.D. must be completed within six years after admission to doctoral candidacy.

## Specialization in Technologies of the Built Environment

Architecture is a discipline encompassing both theory and practice. Engineering is a science applied to many industries of design and the construction trades, including energy systems, materials, structural efficiencies, acoustics, lighting, etc. Thus the professional reach of the two fields overlap in many ways. This joint specialization between the College of Architecture and the Department of Civil, Architectural, and Environmental Engineering provides a new pathway for qualified architecture and engineering students with suitable backgrounds to pursue doctoral research in various fields of building technologies, which span subjects including building physics, architecture, structural engineering, design, and others.

## Curriculum

The program requires a minimum of 52 credit hours, usually completed in three-and-a-half to four years beyond the M.Arch. degree, which will include 6 credit hours of core courses. Another 6 credit hours will be chosen from a list of courses, depending on the student's dissertation research interests. Students must also complete at least 24 credit hours of dissertation research courses (ARCH 691 or CAE 691).

### Required Courses

CAE 513

Building Science

(12)

3

ARCH 601	Doctoral Methodology Pre-Seminar	3
Select a minimum of two courses from the following:		6
CAE 502	Acoustics and Lighting	3
CAE 521	Building Illumination Design	3
CAE 524	Building Enclosure Design	3
CAE 553	Measurement and Instrumentation in Architectural Engineering	3
ENVE 576	Indoor Air Pollution	3
ARCH 485 or ARCH 486	Structures I: Structural Analysis -- The System Structures II: Building Design	3
ARCH 487	Eco Structures	3
ARCH 488	Long-Span and Special Structures	3
ARCH 508	Design Communications III	3
ARCH 509	Topics in Advanced Technology	3
ARCH 551 or ARCH 552	Design of Energy-Efficient Buildings I Design of Energy-Efficient Buildings II	3
ARCH 602	Crafting a Dissertation	3
<b>Elective Courses</b>		(16)
Select 16 credit hours <sup>1</sup>		16
<b>Ph.D. Research</b>		(24)
ARCH/CAE 691	Doctoral Research	24
<b>Master's Transfer Coursework</b>		(32)
A maximum of 32 credit hours may be transferred from master's degree		32
Total Credit Hours		84

<sup>1</sup> Elective coursework should be taken within the student's field of concentration and/or to supplement their research interests. Courses within ARCH, CAEE, MMAE, and a number of other departments are allowed but are subject to adviser approval.