

BUILDING SCIENCE & TECHNOLOGY SEQUENCE

[ABOUT](#)[PROGRAMS](#)[FACULTY](#)[STUDIO-X GLOBAL](#)[CENTERS](#)[LABS](#)[FLAGSHIP PROJECTS](#)[WORK](#)[BOOKS](#)[EVENTS](#)[EXHIBITIONS](#)[COURSES](#)[COURSE SCHEDULE](#)[ACADEMIC CALENDAR](#)[PROGRAM REQUIREMENTS](#)[M.ARCH](#)[STUDIO COURSE SEQUENCE](#)[HISTORY/THEORY SEQUENCE](#)[VISUAL STUDIES SEQUENCE](#)[METHODS & PRACTICE SEQUENCE](#)[BUILDING SCIENCE & TECHNOLOGY](#)[ELECTIVES](#)[SUMMER COURSES](#)[MS.AAD](#)[MS.AAD - GLOBAL CITIES AND ARCHITECTURE](#)[ARPA](#)[MS.AUD](#)[MS.UP](#)[MS.HP](#)[MS.RED](#)[MS.CCCP](#)[PH.D IN ARCH](#) [Login](#)

Director: Phillip Anzalone, AIA

The Building Science and Technology curriculum is based on the belief that architects benefit from having a basic knowledge of technical systems, not only as utilitarian ends in themselves, but also as a means to help develop a building's spaces, forms, and expression. The six-course required sequence begins by outlining the environmental conditions to which habitable spaces respond, and describing the physical determinants of technical building systems. Next, individual building systems—including structure, building enclosure, environmental conditioning, and information management—are explored in depth. For each system studied, various design strategies, materials, fabrication techniques, and didactic built works are explored. Field trips, laboratory demonstrations, and short design problems are used to augment in-class study. As both a qualitative and a basic quantitative understanding of elementary systems are mastered, the curriculum shifts its focus onto increasingly complex systems serving entire buildings. The sequence's last two courses (Architectural Technologies 4 and 5) develop an understanding of how technical-utilitarian systems are resolved, integrated with other systems, and inform a building's spaces and formal expression—first through in-depth case studies of entire buildings, and then by the preliminary design of an industrial-loft block. In both courses, students work in teams with structural, mechanical, and building-envelope experts.

Throughout the Building Science and Technology Sequence, students are encouraged to apply their growing knowledge to design problems posed in studio. Occasionally, studios focusing on various aspects of the relationship between technology and spatial and formal design are offered for third-year students. The goals of the Building Science and Technology electives are threefold: to explore the potential of technological systems to impact design; to understand historical relationships among technology, philosophy, politics, and architecture; and to take advantage of New York's professional practitioners working with the technological "state of the art." The diversity of views regarding architectural technology represented by the school's design and technology faculty is reflected in, and thereby strengthens, the elective offerings.

PREREQUISITE FOR ENTRY INTO THE M.ARCH. PROGRAM

Any 3-point course in general physics or two 3-point courses in calculus.

REQUIREMENTS FOR THE M.ARCH. PROGRAM

Six sequential courses:

A4111 Architectural Technology I (AT1) 3 pts

A4112 Architectural Technology II (AT2) 3 pts

A4113 Architectural Technology III (AT3) 3 pts

A4114 Architectural Technology IV (AT4) 3 pts

A4115 Architectural Technology V (AT5) 3 pts

A4116 Architectural Technology VI (AT6) 3 pts

ELECTIVES FOR THE M.ARCH. PROGRAM

Advanced electives supplement the required curriculum and provide the basis of study for those students entering the school with a strong technical background. The electives focus on recent technological developments and their impact on design, and the historical relationships between technology, philosophy, politics, and architecture. These courses take advantage of New York professional practitioners working with the technological state of the art. The diverse views of architectural technology held by both the School and design and technology instructors are reflected in, and thereby strengthen, the elective offerings.

Electives are open to all students in the School, subject to the prerequisites listed in the course descriptions. Students waived out of ATII; ATIII; ATIV; or ATV, must take an advanced elective course for each waived course. Some courses are not offered every year. Additional technology electives are taught occasionally. See the printed version of the bulletin for a full listing of qualified technical electives.