ARCHITECTURE BACHELOR OF SCIENCE

Leading to a Bachelor of Science Degree in Architecture

The Bachelor of Science in Architecture (B.S. Arch) program is a rigorous course of study centered on the design studio, where students work closely with faculty in their explorations of architectural design across a broad range of scales. Associated courses in visual representation, history, theory, and technology inform and enrich students' responses to studio challenges. Student learning is enhanced by two semesters of cooperative work experience as well as study abroad options.

B.S. Arch Program Concentrations

The undergraduate program in architecture offers three areas of concentration, which allow students to pursue a particular focus within their study of architecture. The core architectural education is equivalent across concentrations, and all achieve the same learning outcomes. All students are required to select a concentration at the end of their first semester in junior year.

Urbanism

This concentration explores architecture's capacity for engaging urban systems and landscapes within the cultural, ecological and historical contexts of the built environment. It challenges students to examine the relationships between these systems as a form of design research and empowers young professionals to collaborate across disciplinary boundaries and provide leadership in reshaping our cities.

Emerging Technologies

This concentration builds knowledge and skills in the technologies that are transforming the discipline and profession of architecture. It explores emergent design techniques, materials, construction methods, digital fabrication, computational software, and media of architecture. It offers students an understanding of the principles and applications of technologies that are central to shaping architectural modernity and the future of the built environment.

Adaptive Interventions

This concentration investigates architecture as it relates to design interventions, adaptations, and transformations of existing conditions, communities, and contexts. It explores how built architectural works engage complex social, political, economic, environmental, historical, and disciplinary forces—and how to re-engage those changing forces when adapting or intervening in an existing setting. If the most sustainable building is one that already exists, this concentration establishes strategies for capitalizing on our built fabric while imagining inventive ways to transform buildings and urban environments from past generations.

Study Abroad

The School of Architecture and Design has a long tradition of offering semester-long study-abroad programs for undergraduates in international locations of architectural and urbanistic significance. The programs are led by Wentworth faculty members in collaboration with architects and scholars residing in those cities. During their time abroad, students enrich their cultural and professional perspectives through study-travel and working closely with local design professionals. Study-abroad curriculum is aligned with required courses in Boston, allowing normal progress toward graduation. During academic year 2024-25, semester-abroad programs are offered in Berlin, Germany; Girona, Spain; and Urbino, Italy.

Cooperative Work Experience

The undergraduate Architecture program has a substantial and well-established cooperative education component embedded in the curriculum. B.S. Arch students spend two semesters working in an architectural or allied professional office. The program collaborates with the Institute's Center for Cooperative Education and Career Development to reinforce the learning content of these experiences. Prior to their first cooperative education semester, students take two courses: COOP2500 INTRODUCTION TO COOPERATIVE EDUCATION, which prepares students for their co-op search and for on-the-job success; and ARCH2225 PRO-PRACTICE PREP, which introduces students to basic concepts, terminology, and industry-standard software related to construction drawings. Work experience during cooperative education semesters may be documented and applied toward future professional licensure through the Architectural Experience Program (AXP), administered by the National Council of Architectural Registration Boards (NCARB).

Admission to the M.Arch Program from the Wentworth B.S. Arch Program

Wentworth undergraduates in the B.S. Arch program may apply to the M.Arch program in their senior year; acceptance is based on a faculty committee evaluation of the applicant's undergraduate transcript, portfolio, statement of objectives, and references. Undergraduate architecture majors who have achieved an overall GPA of 3.0 or higher through junior year will be accepted automatically into the M.Arch program for the following year's application cycle; these students only need to submit an application form, a resume, and a statement of objectives. Automatic acceptance applies *only* to applicants currently enrolled in Wentworth's B.S. Arch program.

Professional Licensure and Accreditation

In the United States, most registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The National Architectural Accrediting Board (NAAB), which is the sole agency authorized to accredit professional degree programs in architecture offered by institutions with U.S. regional accreditation, recognizes three types of degrees: the Bachelor of Architecture, the Master of Architecture, and the Doctor of Architecture. A program may be granted an eight-year term, an eight-year term with conditions, or a two-year term of continuing accreditation, or a three-year term of initial accreditation, depending on the extent of its conformance with established educational standards. Doctor of Architecture and Master of Architecture degree programs may require a non-accredited undergraduate degree in architecture for admission. However, the non-accredited degree is not, by itself, recognized as an accredited degree.

Wentworth Institute of Technology's School of Architecture and Design offers the following NAAB-accredited degree programs:

- 1 Yr M.Arch (Wentworth B.S. Arch + 34 credits)
- 2 Yr M.Arch (pre-professional bachelor's degree in architecture + 70 credits)
- 3 Yr M.Arch (bachelor's degree in a field other than architecture + 106 credits)

The next accreditation visit for all programs is spring 2027.

Program Educational Objectives

- The undergraduate architecture curriculum is framed within a liberal arts course of study and leads to a pre-professional degree. While completing a structured sequence of required and elective courses in architecture and other subject areas, students learn to think holistically, drawing connections between different areas of knowledge. Upper-level courses are focused on developing critical skills necessary for understanding architecture within a global cultural context; students gain experience in advanced problem solving, independent research, and writing within the architectural and humanities curricula. The program encourages deep explorations in the material culture of architecture and challenges students to deploy this knowledge in ways that enrich the built environment and enhance people's lives. Along with providing a pre-professional degree in architecture, successful completion of the Bachelor of Science program allows students at Wentworth to apply to the one-year Master of Architecture program.

Student Outcomes

The Bachelor of Science in Architecture program emphasizes the tangible, material, and cultural dimensions of the discipline, exploring a range of technologies that inform design. Graduates of the B.S. Arch program will have the ability to:

- Articulate design concepts in written, verbal, and graphic forms, using appropriate media for communicating their ideas;
- Develop abstract ideas and concepts through critical, rational, and intuitive thinking in order to resolve complex design problems using research, making, and experimentation;
- Describe both parallel and divergent histories of architecture and urban spaces and identify social and spatial patterns that characterize different cultures and individuals;
- Respond appropriately to site conditions; develop a program of functional uses; interpret building codes and apply principles of life-safety and accessibility;
- Employ knowledge of basic structural behavior and apply appropriate structural systems to design solutions;
- Select, develop, and integrate climate control and other building systems, both passive and active, as appropriate to a chosen site and a program, prioritizing sustainability and minimizing negative impacts on the environment;
- Make integrated design decisions, relying on critical assessment and evaluation, in order to synthesize environmental, technical, accessibility, structural, and material issues.

B.S. Architecture Degree Details

Total Credits for degree: 136

The Bachelor of Science in Architecture is a four-year full-time program that begins in the fall of the student's first year and is intended to be completed in the spring semester of the fourth year.

Curricular Sequence

Foundation and Integration

In the first year, students get a broad introduction to design and visualization methods that serve as foundations for their study of architecture. Over the following four semesters, students take a sequence of courses in architectural history and theory, construction technology, and structural and environmental systems that support design studios of increasing complexity.

Concentrations

In the first semester of junior year, students in the Architecture major must select one of three concentrations – Urbanism, Emerging Technologies, or Adaptive Interventions – as the focus of their advanced coursework during junior and senior years. In the following summer semester, juniors take their first concentration seminar, surveying the history and theory of their chosen concentration. In the fall of senior year, students take a second concentration seminar together with a concentration-specific studio (Studio 07).

Course	Title	Credits
First Year		
Fall Semester		
ARCH1000	STUDIO 01	6
ARCH1200	ARCHITECTURAL REPRESENTATION	4
English Sequence		4
MATH1000	COLLEGE MATHEMATICS	4
MATH1500, MATH1700, MATH1750, MATH1800 or MATH1850 will satisfy the MATH Requirement		
	Credits	**18**
Spring Semester		
ARCH1500	STUDIO 02	6
ARCH1700	ARCHITECTURAL MEDIA	4
English Sequence		4
PHYS1000	COLLEGE PHYSICS I	4
PHYS1250 will also satisfy the PHYS requirement		
	Credits	**18**
Second Year		
Fall Semester		
ARCH2000	STUDIO 03	6
ARCH2100	HISTORY/THEORY 01	4
ARCH2200	BUILDING MATTERS: MATERIALS & ELEMENTS OF CONSTRUCTION	4
HSS Elective		4
COOP2500	INTRODUCTION TO COOPERATIVE EDUCATION	0
	Credits	**18**
Spring Semester		
ARCH2500	STUDIO 04	6
ARCH2600	HISTORY/THEORY 02	4
ARCH2700	ENERGY & RESOURCES IN ARCHITECTURE	4
ARCH3400	STRUCTURES 01	4
ARCH2225	PRO-PRACTICE PREP	0
	Credits	**18**
Summer Semester		
COOP3500	COOP EDUCATION 1	
	Credits	**0**
Third Year		
Fall Semester		
ARCH3000	STUDIO 05	6
ARCH3900	STRUCTURES 02	4
HSS Elective		4

Course	Title	Credits
Math/Science/HSS Elective		4
	Credits	**18**
Spring Semester		
COOP4500	COOP EDUCATION 2	
	Credits	**0**
Summer Semester		
ARCH3500	STUDIO 06	6
ARCH3200	PASSIVE & ACTIVE SYSTEMS	4
ARCH3700	CONCENTRATION STUDIES 01	4
HSS Elective		4
	Credits	**18**
Fourth Year		
Fall Semester		
ARCH4000 or ARCH4025 or ARCH4050	STUDIO 07 (URBANISM) or STUDIO 07 (EMERGING TECHNOLOGIES) or STUDIO 07 (ADAPTIVE INTERVENTIONS)	6
ARCH3750	CONCENTRATION STUDIES 02	4
HSS Elective		4
	Credits	**14**
Spring Semester		
ARCH5500	STUDIO 08	6
Architecture Elective		4
HSS Elective		4
	Credits	**14**
	Total Credits	**136**

Architecture Electives

Students are encouraged to pursue breadth, as well as depth in their architectural studies. The following list is indicative of the Architecture program's elective course offerings in recent years:

Course	Title	Credits
ARCH3800	SPECIAL TOPICS IN ARCHITECTURE (Design Strategies for Low-Carbon Buildings)	4
ARCH3800	SPECIAL TOPICS IN ARCHITECTURE (Geospatial Modeling)	4
ARCH3800	SPECIAL TOPICS IN ARCHITECTURE (Holistic Sustainable Design Integration)	4
ARCH3800	SPECIAL TOPICS IN ARCHITECTURE (Animated Architectural Volumes)	4
ARCH3800	SPECIAL TOPICS IN ARCHITECTURE (Potentials of Additive Manufacturing)	4
ARCH3800	SPECIAL TOPICS IN ARCHITECTURE (Architects, Directors, Scenographers)	4
ARCH3800	SPECIAL TOPICS IN ARCHITECTURE (Collage in Architecture)	4
ARCH3800	SPECIAL TOPICS IN ARCHITECTURE (Green & Resilient Design)	4
ARCH3800	SPECIAL TOPICS IN ARCHITECTURE (Color Relationships)	4
ARCH3800	SPECIAL TOPICS IN ARCHITECTURE (Modernism Beyond the West)	4
ARCH3800	SPECIAL TOPICS IN ARCHITECTURE (Material Intelligence)	4
ARCH3800	SPECIAL TOPICS IN ARCHITECTURE (Issues in Professional Practice)	4
ARCH3800	SPECIAL TOPICS IN ARCHITECTURE (Context Analysis-Berlin)	4
ARCH3800	SPECIAL TOPICS IN ARCHITECTURE (Space & Media)	4
ARCH3800	SPECIAL TOPICS IN ARCHITECTURE (City of the Future)	4
ARCH3800	SPECIAL TOPICS IN ARCHITECTURE (Building Community)	4
ARCH3800	SPECIAL TOPICS IN ARCHITECTURE (Project Planning)	4
ARCH3800	SPECIAL TOPICS IN ARCHITECTURE	4
ARCH3800	SPECIAL TOPICS IN ARCHITECTURE	4
ARCH3800	SPECIAL TOPICS IN ARCHITECTURE	4
ARCH3800	SPECIAL TOPICS IN ARCHITECTURE	4

ENGL/HSS Note

Students in the Architecture major are required to complete a minimum of 28 credit hours in English, humanities, and social sciences, including:

- Two or three semesters of English, according to placement;
- At least one elective in a Humanities category (CSAS, HIST, HSSI, HUMN, LITR, PHIL);
- At least one elective in a Social Sciences category (COMM, CSAS, ECON, ENVM, HSSI, POLS, PSYC, SOCL).

The remaining credit hours may be satisfied with electives in any of these Humanities and Social Science fields: COMM, CSAS, ECON, ENVM, HSSI, HIST, HUMN, LITR, PHIL, POLS, PSYC, SOCL.

General Education Note

The Bachelor of Science degree requires the completion of a minimum of 40 credit hours of General Education, defined as coursework in “the arts and humanities, the sciences including mathematics, and the social sciences” (NECHE Standards for Accreditation, 2016). Students in the Architecture major may satisfy the General Education requirement with a combination of required and elective courses in Math, Sciences, English, Humanities, and Social Sciences.

Studio Grade Requirement

The School of Architecture and Design has a special grade requirement that applies to all undergraduate design studio courses from the sophomore year onward. Students in the Bachelor of Science programs are responsible for demonstrating improvement and growth each semester and are held to the following standard in their design studios:

A final grade below C is considered a sub-standard grade, indicating that the student is not meeting expectations. Students who earn a final grade of C-, D+, or D for two consecutive semesters are not permitted to continue in the studio sequence until they successfully repeat the second studio for which they received a sub-standard grade.