

# 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, technology, and professional practice 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.

## 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;

- Interpret professional issues through evaluating plans, schedules, specifications, and financial data.

## 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 in the Anthropocene, economics and social justice, and the larger forces of history and culture operating on and through the built environment. It challenges students to explore the interplay between complex social, cultural, and ecological 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 2022-23, semester-abroad programs will be offered in Urbino, Italy and Girona, Spain.

## 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 placements. Prior to their first cooperative education experience, students take ARCH2225 PRO-PRACTICE PREP, which introduces them to basic

concepts and terminology as well as the 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 2026.

## B.S. Architecture Degree Details

Total Credits for degree: 136

The Bachelor of Science in Architecture is a four-year 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.

In the junior year, students select one of three concentrations – Urbanism, Emerging Technologies, or Adaptive Interventions – as the focus of their advanced coursework during junior and senior years.

## Special Grade Requirement

The Architecture academic unit has a special grade requirement that applies to all design studio courses from the sophomore year onward.

Students in the B.S.Arch program must comply with the following design studio grade requirement:

Final grade must be C or better if the final grade in the previous design studio is less than a C.

Students who receive a final grade below C for two consecutive semesters are not permitted to continue in the program until they successfully repeat the second studio for which they received a sub-standard grade.

## Curricular Sequence Foundation and Integration

In the first year, students get a broad introduction to the field of architectural design, which serves as the foundation for the curriculum. In the following three semesters, students gain knowledge in integrative design, with sequenced courses in construction technology, environmental systems, structures, history and theory supporting design studios of increasing complexity.

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

Course	Title	Credits
<b>Junior Year</b>		
<b>Fall Semester</b>		
ARCH3000	STUDIO 05	6
ARCH3900	STRUCTURES 02	4
HSS Elective		4
General Elective		4
<b>Credits</b>		<b>18</b>
<b>Spring Semester</b>		
COOP4500	COOP EDUCATION 2	0
<b>Credits</b>		<b>0</b>
<b>Total Credits</b>		<b>90</b>

### Concentrations

In the fall of junior year, students choose one of three concentrations. In the following summer semester, juniors take their first concentration seminar, which surveys the history and theory of their chosen concentration. This seminar is followed in senior year by a second concentration seminar and a concentration-specific studio (Studio 07).

#### Urbanism Concentration

Course	Title	Credits
<b>Junior Year</b>		
<b>Summer Semester</b>		
ARCH3500	STUDIO 06	6
ARCH3200	PASSIVE & ACTIVE SYSTEMS	4
ARCH3700	CONCENTRATION STUDIES 01	4
HSS Elective		4
<b>Credits</b>		<b>18</b>
<b>Senior Year</b>		
<b>Fall Semester</b>		
ARCH4000	STUDIO 07 (URBANISM)	6
ARCH3750	CONCENTRATION STUDIES 02	4
HSS Elective		4
<b>Credits</b>		<b>14</b>
<b>Spring Semester</b>		
ARCH5500	STUDIO 08	6
Architecture Elective (p. 3)		4
HSS Elective		4
<b>Credits</b>		<b>14</b>
<b>Total Credits</b>		<b>46</b>

#### Emerging Technologies Concentration

Course	Title	Credits
<b>Junior Year</b>		
<b>Summer Semester</b>		
ARCH3500	STUDIO 06	6
ARCH3200	PASSIVE & ACTIVE SYSTEMS	4
ARCH3700	CONCENTRATION STUDIES 01	4
HSS Elective		4
<b>Credits</b>		<b>18</b>
<b>Senior Year</b>		
<b>Fall Semester</b>		
ARCH4025	STUDIO 07 (EMERGING TECHNOLOGIES)	6

Course	Title	Credits
ARCH3750	CONCENTRATION STUDIES 02	4
HSS Elective		4
<b>Credits</b>		<b>14</b>
<b>Spring Semester</b>		
ARCH5500	STUDIO 08	6
Architecture Elective (p. 3)		4
HSS Elective		4
<b>Credits</b>		<b>14</b>
<b>Total Credits</b>		<b>46</b>

#### Adaptive Interventions Concentration

Course	Title	Credits
<b>Junior Year</b>		
<b>Summer Semester</b>		
ARCH3500	STUDIO 06	6
ARCH3700	CONCENTRATION STUDIES 01	4
HSS Elective		4
ARCH3200	PASSIVE & ACTIVE SYSTEMS	4
<b>Credits</b>		<b>18</b>
<b>Senior Year</b>		
<b>Fall Semester</b>		
ARCH3750	CONCENTRATION STUDIES 02	4
ARCH4050	STUDIO 07 (ADAPTIVE INTERVENTIONS)	6
HSS Elective		4
<b>Credits</b>		<b>14</b>
<b>Spring Semester</b>		
ARCH5500	STUDIO 08	6
Architecture Elective (p. 3)		4
HSS Elective		4
<b>Credits</b>		<b>14</b>
<b>Total Credits</b>		<b>46</b>

#### Architecture Electives

Students are encouraged to pursue breadth, as well as depth in their architectural studies. The following list is indicative of the Architecture academic unit 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

Course	Title	Credits
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 (Framing Chinese Architecture)	4
ARCH3800	SPECIAL TOPICS IN ARCHITECTURE (Multi(ply))	4
ARCH3800	SPECIAL TOPICS IN ARCHITECTURE (Fundamentals of Design Finance)	4
ARCH3800	SPECIAL TOPICS IN ARCHITECTURE (Explorations in the Making)	4

**ENGL/HSS Note**

**Students are required to complete:**

- **At least one course in Humanities: HSSI, HIST, HUMN, LITR and PHIL**
- **At least one course in the Social Sciences; HSSI, COMM, ECON, POLS, PSYC, and SOCL**
- **The remaining course from either the Humanities or Social Sciences category.**

**Students with a three English course sequence may use the third English course to satisfy a Humanities requirement.**

**A minimum of 28 credits total, including English, humanities, and social science credit, is required to complete the humanities and social sciences graduation requirement.**