

**Wentworth Institute of Technology
College of Architecture, Design and Construction Management
Department of Architecture**

Architecture Program Report for 2018 NAAB Visit for Continuing Accreditation

Degree Title: Master of Architecture

Track One: Four-year B.S. (135) + One-year M.Arch. (36) = 171 total credits

Track Two: Four-year pre-professional degree (120 min) + Two-year M. Arch (72) = 192 total credits

Track Three: Four-year undergraduate degree (120 min) + Three-year M. Arch. (108) = 228 total credits

Year of the Previous Visit: 2012

Current Term of Accreditation: “The professional architecture program: Master of Architecture was formally granted a six-year term of accreditation. The accreditation term is effective January 1, 2012. The program is scheduled for its next accreditation visit in 2018.”

Submitted to: The National Architectural Accrediting Board

Date: September 7, 2017

Program Administrator:

Sharon Matthews, Interim Chair

Chief Administrator for the academic unit in which the program is located (e.g., dean or department chair):

Chuck Hotchkiss, Dean, College of Architecture, Design & Construction Management

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Section 1. Program Description

I.1.1 History and Mission

Wentworth Institute of Technology, a nationally and internationally recognized university with more than 4,300 full-time day students, offers baccalaureate degrees in the disciplines of interior and industrial design, computer science, engineering, engineering technology, and management, as well as Masters degrees in architecture, construction management, applied computer science, civil engineering, technology management, and facility management. The Institute was founded in 1904 through a bequest of Arioeh Wentworth, a prominent Boston merchant, with a mission “to furnish education in the mechanical arts.” The founding mission was further specified by first principal Arthur Williston in 1920 as the four-square qualities of manhood for which the [Seal of Wentworth Institute](#) would inspire all to strive: Honest, Energy, Economy, System.

It has since graduated students who have assumed leadership roles in the professions, industry, education, and government. Wentworth co-op students and graduates are highly sought after for their ability to adapt to the workplace, their problem solving skills, and their preparedness for leadership roles in the professions. The initial focus on *making* remains at the core of Wentworth’s pedagogy and curricula with the continuous implementation of 21st Century technologies, tools and work flows.

The Wentworth Institute campus is located on thirty-one acres fronting Huntington Avenue in the Fenway area of Boston. It is near the Museum of Fine Arts, Symphony Hall, and numerous institutions of higher education. The location supports Wentworth’s membership in the Colleges of the Fenway, one of Boston’s largest academic collaborations. This partnership with Emmanuel, Simmons, and Wheelock Colleges; Massachusetts College of Art; and MCPHS University provides students with expanded academic options and a broad campus community.

Wentworth Institute offers a three-part learning model. Theories presented in the classroom are tested in studios and labs, and then applied in professional settings through cooperative education. Each stage has unique strengths:

- Small classes provide direct contact with professors and support a highly interactive environment.
- On-campus studios and labs bring classroom theory to life, giving students the confidence to master complex tools and techniques. Studio and lab work are integral components of all majors.
- After 3 semesters, classroom learning and studio/lab experience are “put to work.” All baccalaureate programs require two semesters of co-op education, with an optional third semester. Students are encouraged to seek co-op positions across North America and the globe in order to gain a broader perspective and expand their professional opportunities. Experience from co-op employment serves students within their coursework, and many co-op positions lead directly to full-time employment after graduation.

In August 2017, with the development of graduate programs in four distinct areas: Design (Master of Architecture); Management (Master of Science in Construction Management, Master of Science in Facility Management, and Master of Science in Technology Management); Engineering (Master of Engineering in Civil Engineering); and Science (Master of Science in Applied Computer Science, Wentworth qualified for university status as defined by the Massachusetts Board of Higher Education.

From its inception, Wentworth has offered programs related to architecture and building technology. As a school for the mechanical arts, its curriculum provided students with the knowledge and skills to enter careers in the architectural profession. After World War II, returning veterans seeking jobs in architecture and related disciplines were accommodated by the introduction of a two-year associate degree program in Architectural Construction, later called Architectural Engineering Technology (AET).

In 1972 Wentworth began graduating students from its first baccalaureate degree programs. The Bachelor of Science in Architectural Engineering Technology (BAET) was created as a two-year extension to the AET associate degree. As in all bachelor’s degree programs at Wentworth, the BAET

program required two semesters of cooperative work experience. The co-op program continues to be a central feature of practicum-based learning for all architecture students at Wentworth to this day.

During the late 1980s, new demands from within the architectural profession and the evolving architectural curriculum at Wentworth led to the initiation of a five-year professional degree program – the Bachelor of Architecture degree. The curriculum of the new program was founded on Wentworth's emphasis on technology and the art of making, and its growing faculty of experienced licensed architectural practitioners.

After a successful team visit in 1992 the National Architectural Accreditation Board (NAAB) awarded Wentworth's Bachelor of Architecture degree full accreditation. NAAB's visiting team gave special notice to the program's unique emphasis on technology in architecture, its newly formed semester abroad program, and Wentworth's commitment to offering an accessible route to professional credentials for students from a wide variety of backgrounds. Along with accreditation the department witnessed many new infrastructure improvements: new studios, critique spaces and faculty offices were constructed in support of the new curricular and studio culture goals.

In September of 2003, the department launched a substantially revised B.Arch. curriculum. This included a new foundation program for freshman and sophomore students, a revised upper level curriculum with new studios closely coordinated with co-requisite technology courses, and a newly restructured study abroad program in Berlin, Germany. Along with these curricular changes the Institute authorized a significant number of new full-time faculty positions in order to strengthen the department. Subsequently a talented and energetic group of new faculty joined a dedicated team of experienced faculty to form a cohesive and highly motivated department. Concurrently, the department worked intensively with the Institute to implement a laptop policy that has succeeded in integrating digital technology throughout the curriculum, affecting all students and faculty.

Following the NAAB visit in 2006, when the B. Arch. received a full six-year term of accreditation, the Department began developing its proposal to offer graduate studies in architecture, and petitioned the Institute to pursue a charter change to allow graduate-level programs, including the Master of Architecture degree. The Architecture Department, with the support of President Pantic and the Board of Trustees, led the approvals process with the Massachusetts Department of Higher Education (approved in 2008), as well as the accreditation process for master's level studies with the New England Association of Schools and Colleges (approved in 2009). In the process, the architecture department revised the five-year B.Arch. degree to create a four-year Bachelor of Science in Architecture (B.S.Arch.) and a one-year Master of Architecture degree (M.Arch.), which was approved as a nomenclature change by the NAAB in 2009. Beginning in the academic year 2012-13, the department initiated a two-year M.Arch. degree track for outside candidates who hold a pre-professional degree in architecture. In addition to the new two-year M.Arch track, the department initiated a three-year M.Arch track the following academic year 2013-14 for students without a degree in architecture.

The current course of studies provides a well-rounded liberal arts curriculum along with pre-professional and professional degrees. Beginning in the foundation years and continuing through both the B.S.Arch. and M.Arch. courses of study, students are challenged to view their education holistically, through required and elective courses both outside and within the architectural curriculum. Courses in the humanities and social sciences from the Institute and Colleges of the Fenway offerings work together with the department's advanced courses in concentration studies. These advanced offerings are grouped into three concentrations (Urbanism, Emerging Technologies and Adaptive Interventions), and all junior students commit to one concentration.

Along with graduate courses such as thesis preparation, advanced studies serve to develop and focus the skills and powers of inquiry required for seeing architecture within its larger global cultural context. These courses also offer a forum where students develop abilities in advanced problem solving, independent research, and writing within the architectural and humanities curricula. (See Section 3, II.1.1 Student Performance Criteria)

The Study Abroad program, optional for fourth-year undergraduate students, currently takes place in either fall or spring semesters in Berlin, Germany. Travel-based studios offering M.Arch. students the chance to engage global issues in [Special Topics Studios](#) began in 2009-2010. These studios have recently traveled to Bali, Benin, Glasgow, Istanbul, Lisbon, London, Paris, Rome, Shanghai, New York, and New Orleans.

Prior to the 2012 visit, a number of physical and cultural changes were enacted in support of the M.Arch. program. There have been significant renovations to the third and fourth year studios, as well as new critique spaces that are shared by all studios. And, the department's shop facilities have become the Center for Applied Research (CfAR), a student-focused collaborative environment for investigating emerging fabrication technologies and methods. CfAR supports the department's core principle of thinking through making by providing a dynamic network of spaces for prototyping and applied research. Students have access to equipment, expertise, and guidance across many areas of fabrication, including CNC milling, 3D printing, woodworking, laser-cutting, and robotics. Please see the [Center for Applied Research \(CfAR\)](#) website for additional information about facilities and resources.

With expanded access to resources, student involvement in co-curricular activities has increased. New leadership opportunities have fostered the emergence of more student leaders and a more energized student body. Beginning in spring 2010, a M.Arch Awards & Exhibition, followed by a summer B.S.Arch Awards & Exhibition event, demonstrated and celebrated a strengthened culture of architecture within the student body and the Institute. With a curricular change in 2015-2016, and both programs graduating in spring, a combined B.S.Arch and M.Arch Awards & Exhibition event is now held. This event has become a tradition and is currently continued every spring. Together with the other departments of the College of Architecture, Design and Construction Management, the Architecture department sponsors the Annex Lecture Series, open to the Institute, inviting notable designers, architects and construction managers to share their insights and work. To learn more, please see [Architecture Events](#) for complete listings.

In January of 2011, under the vision and leadership of Provost Russell Pinizzotto, the Institute implemented a reorganization of its academic structure. Seven departments became four colleges: Architecture, Design, and Construction Management; Arts and Sciences; Engineering and Technology; and Professional and Continuing Education. The new structure enables the Institute to be more inclusive and interdisciplinary, and to facilitate collaborative exchanges between the Architecture department and the allied fields of interior and industrial design and construction management. In fall 2017, 51% of the Institute's student population is enrolled in engineering and technology programs, about 15% is in design programs, and about 13% is in management programs.

In the spring of 2013, a director of the graduate program was appointed. In August of 2013, Michael MacPhail, who had been a co-chair since January of 2011, became the sole department chair. In May of 2014, the Dean of the College, Glenn Wiggins, resigned. Dr. Charles Hotchkiss assumed leadership in December 2014 as Dean of the College following seven months as Interim Dean. Dean Hotchkiss had been a long-time professor and chair of Urban and Regional Planning in the College of Environmental Design at Cal Poly Pomona. He also has prior administrative experience as Dean of the School of Community Economic Development at Southern New Hampshire University.

In Fall 2015, Kelly Hutzell took over as Director of Graduate Programs. In January 2017 Michael MacPhail left Wentworth to become director of the Center for Green Buildings and Cities at Harvard University. Sharon Matthews assumed the Department Chair position on an interim basis effective May 1, 2017.

Institute Mission Statement

Wentworth's core purpose and mission is to empower, inspire and innovate through experiential learning. Our motto is Do, Learn, Succeed.

Values Statement

At Wentworth, our core values reflect that we are student-centered, that we are passionate for

real-life, hands-on teaching and learning, and that innovation and creativity are at the center of what we do. We express these three core values as Students first – The world is our classroom – Thinking without a box.

College Mission Statement

The College of Architecture, Design, and Construction Management at Wentworth is deeply rooted in the tradition of design, construction, and technological innovation. These core values are woven throughout each of the departments within the college. The degree programs seek to educate well-grounded professionals, equipping graduates with the skills and insights to make positive contributions to our built environment. The programs place particular emphasis on the tangible, material nature of making, and the technologies that inform it.

Department Mission Statement

The Architecture program at Wentworth embraces the art of making. We are committed to the traditional role of the practitioner and master builder: to design and construct buildings that contribute to society and enrich people's lives. To that end, the curriculum promotes research and design based on the linkages between conceptual frameworks and the tangible nature of architecture. Through rigorous investigations into the history, theory and material culture of the built environment, students engage design as a fusion of the art and science of building.

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. Wentworth's Bachelor of Science in Architecture and Master of Architecture degree programs seek, together, to provide holistic, practical, and liberal arts based architectural education. The B.S.-Arch. program emphasizes the tangible, material, and cultural dimensions of the discipline, while also accentuating the technologies that inform design. The M.Arch. curriculum continues the emphasis on the art of making, and its thesis sequence enables students to think deeply and critically. The programs, in complement, seek to educate well-grounded design professionals, equipping graduates with the skills and insight to make positive contributions to the built environment.

The architecture curriculum encompasses both the art and the science of architecture, examining the theory, history, culture, and technology of the built environment. Wentworth students gain a broad perspective on the profession, which is essential to informed contemporary practice.

The Bachelor of Science in Architecture program includes two semesters of cooperative work experience, offering a valuable introduction to professional practice. Students also acquire detailed knowledge of design and building systems, strong analytical and communication skills, and the ability to work with clients, community groups, and professionals from many disciplines. Study abroad provides an opportunity to live and work in another culture for a full semester while experiencing that culture's historical and contemporary architecture and urbanism. Tied in with the Institute's [EPIC Experiential Learning](#) initiative, students have a chance to collaborate in interdisciplinary teams that reach beyond the school, into the community. The implementation of a [Minor in Architectural Studies](#) allows for the discipline to be available to Wentworth's student community at large. A new summer program in architecture for high school students, [Summerfab](#), has expanded the capability of the Institute to offer educational opportunities to a younger population.

Wentworth's architecture faculty represents a broad range of backgrounds, interests, and areas of expertise, and is united by a shared vision of architecture as an art grounded in the making of buildings. The faculty views education as a collaborative process, based on mutual respect, and engaging diverse talents and disciplines. Faculty members stress the responsibilities inherent in the architect's role as a shaper of the built environment, challenging students to understand the impact of architecture on people – individuals, communities, and societies – and on the natural environment. Above all, each faculty member conveys passion and commitment to the discipline of architecture.

Wentworth's location in central Boston, a vital urban center with a wealth of historic and contemporary architecture, is an ideal setting for an aspiring architect. Boston serves as a resource and a working laboratory, providing the physical and cultural context for many studio assignments and research agendas.

Through a well-integrated sequence of studios and coursework, complemented by cooperative work experience, the program presents students with a comprehensive view of the profession to provide preparation for a broad range of practice opportunities. The program offers an accessible route to the credentials required for professional registration. Wentworth's Bachelor of Science in Architecture and the three Master of Architecture degree tracks provide graduates with the skills and perspective to pursue challenging, rewarding, and responsible careers in architecture.

I.1.2 Learning Culture

Wentworth's architecture learning culture has its roots in the studio environment where students spend most of their time working and developing learning relationships. The spirit of the studio extends into the classroom and throughout the department, creating an atmosphere of continual inquiry and collaboration. The architecture department's offices, classrooms, hallways, Casella Gallery, Blount Auditorium and the Alumni Library are open spaces of fluent communications between the student body and faculty.

The department has developed a statement of the goals and values that guide our learning environment. The Studio Culture Policy, first adopted in 2005, is continually reviewed by a faculty/student committee to ensure its continued relevance. For more information on our [Studio Culture Policy](#), please see the current versions published on our website under Student Culture.

Based on ongoing discussions with the Student Culture Committee, it is clear that Wentworth's original policy remains vibrant and relevant to students, faculty, and staff. More than a policy document, studio culture at Wentworth is a set of values shaping a productive environment that promotes the academic and civic growth of students and faculty, and instills guiding principles of professional conduct beyond graduation.

While the structure and curricular roles of the studio maintain continuity with the past, the department's learning culture is continuously evolving to meet the contemporary challenges of technology, the dynamic changes in human relationships, and the studio as an open laboratory of innovation and experimentation.

The learning community in the school of architecture extends beyond the studios and classrooms into the the Center for Applied Research (CfAR), the Innovation + Entrepreneurship Center (Accelerate), field trips, lecture series, clubs and student organizations and most importantly, the city of Boston.

The current Studio Culture Policy is posted on the Wentworth Architecture website. The use of Blackboard and NuVu now makes it possible to quickly absorb feedback from students and faculty, and to communicate ideas and concerns to the Student Culture Committee. Please see the [Committee List](#) for more information.

In addition, the department distributes a handout called [Wentworth Studio Guidelines](#) at the beginning of every academic year to all students, which conveys the basic elements of the Studio Culture Policy, health and safety facts related to the studio, and contact information in case of emergency. The handout establishes the responsibilities of studio monitors, the studio schedule, and special holiday hours.

The role of the Student Culture Committee is to oversee the Studio Culture Policy as part of Wentworth's learning culture and to bring new ideas and concerns directly to the faculty and administration. Some of the proposals that have been implemented with faculty, staff and student participation include:

- Creation of dedicated first-year studios in the Annex Building
- Renovation of the upper level studios to improve working conditions, with the addition of six new critique rooms
- Acquisition of new equipment (laser-cutters, CNC, robotic arm) and improvements to the CfAR

- Implementation of a student recycling initiative
- Participation of student clubs in extra-curricular activities and field trips
- Creation of the graduate section leaders program
- Overall coordination of studio reviews at all levels of the program
- Participation of Boston-based professionals and community leaders in studio reviews
- Creation of the Special Topics traveling studios in the Master of Architecture program

I.1.3 Social Equity

Wentworth's commitment to making good on its "Equal Opportunity and Affirmative Action Policy" is clearly demonstrated in the breadth and depth of its many programs dedicated to ensuring the highest standards of social equity, diversity, and inclusion. These include:

- [Bridges Mentoring Programs](#) and IMPACT for students of color for creating career-long connections
- [Louis Stokes Alliance for Minority Participation](#) offering a program of study groups, scholarships and mentoring,
- [RAMP: Summer Bridge Program](#) through the Center for Community and Learning Partnerships for Boston residents who will be attending the Institute at first-year students in the fall, and ongoing case management for students throughout their years at Wentworth, directed by 2010 M.Arch alumnus Erik Miller
- The Center for Diversity & Social Justice's program of [Diversity Advocates](#)
- On-line and in-person resources of the [Student Experience Diversity Committee](#), including faculty and staff training in Interrupting and confronting Bias Related Behavior
- Single-user restrooms throughout the campus
- Gender inclusive suites and apartments in its residence halls
- Trans*-inclusive sports and recreation program.
- A growing number of student organizations dedicated to supporting the traditionally underrepresented groups on campus
- A wholesale shift from "disability" accommodations to a robust Universal Design for Learning program to ensure that courses are planned, delivered and evaluated in ways that meet the needs of every learner on campus regardless of ability

Given its location bridging between the Longwood medical and educational area and several major public housing communities, Wentworth's role in the city of Boston is a natural extension of its physical and institutional position in the heart of several of Boston's neediest and most vital neighborhoods.

The Department continues to see its role as one of the most concrete and directly engaged agents of change for advancing diversity both locally and globally.

- The 2017 SummerFAB program targeted area high school students to participate in a four-week intensive design-build studio experience
- 2016 establishment of a Wentworth chapter of the National Organization of Minority Architecture Students by longtime NOMAS member Associate Professor Antonio Furgiuele
- Safe Space Guardians, Architecture has the highest participation rate of any group on campus
- Co-op student engagements with the community
- Sociology courses on community learning and income inequality
- Graduate Special Topics Studio travel supported by in-country Wentworth alumni in Benin (Africa), Shanghai (China), and Bali (Indonesia)

As the department does more to engage its local and global community partners, it naturally attracts students and faculty from an increasingly diverse and far-flung network.

A Diversity Statistics Chart documents the diversity of students, faculty and staff with respect to the diversity of the institution overall.

Figure 2: Diversity Statistics Chart

		2012-13	2013-14	2014-15	2015-16	2016-17
STUDENTS						
	Institute	17%	18%	20%	21%	21%
	Program	13%	12%	13%	11%	16%
FULL-TIME FACULTY						
	Institute	15%	16%	17%	14%	13%
	Program	15%	16%	14%	15%	16%
ADJUNCT FACULTY						
	Institute	-	-	-	-	14%
	Program	16%	17%	18%	21%	33%
STAFF						
	Institute	26%	24%	28%	29%	22%
	Program	13%	13%	20%	20%	20%

Changes in the demographic composition of the Department in the past six years indicate that while we have done an excellent job extending our engagements with collaborators near and far, there is more work to be done.

The Department's diversity and inclusion initiatives are a central focus of its self-assessment and long range planning. Specifically:

- Regular participation in the [Institute's Campus Climate](#) development programs and survey
- Targeted prospective student recruitment efforts at Boston-area high schools
- Targeted faculty recruitment efforts

For the ways these efforts are integrated in the Department's day-to-day and long term operations, please see sections I.1.5 Long Range Planning and I.1.6 Assessment below.

I.1.4 Defining Perspectives

A. Collaboration and Leadership

Coursework Wentworth students acquire a foundation for collaboration and leadership in the first three semesters of the curriculum. They begin the development of communication skills in ARCH 1000 and continue to build upon those skills in each succeeding semester. They become aware of issues of cultural diversity in ARCH 2000 and ARCH 2600 and they test these tools of collaboration in EPIC studios later in the curriculum.

Program activities and events. Students have been directly involved in the creation and ongoing refinement of the Studio Culture Policy document. Graduate-level students serve as section leaders for

undergraduate studios where they observe and influence studio behavior as role models for undergraduate students. Both undergraduate and graduate students cooperate and share leadership roles in four architecture student organizations: the Wentworth Architecture Club (WAC), the American Institute of Architecture Students (AIAS), Freedom by Design, and the National Organization of Minority Architecture Students (NOMAS). Students also publish the departmental journal, the Wentworth Architecture Review (*WAr*).

External programs and events Through the [Wentworth Center for Diversity & Social Justice](#) students become aware of resources that are both supportive in the development of leadership skills and provide opportunities to assume leadership roles and make a difference in their academic community. For more information, see the [Student Leadership](#) webpage. The student services offices also support a variety of clubs and associations, all with opportunities for students to lead and collaborate. For a full listing of all student clubs, please see the [Student Organizations & Activities](#) webpage.

Clients and the public. Architecture students take part in [EPIC](#) studios which are the focus of an education at Wentworth in every discipline:

“The role of EPIC Learning at Wentworth is to facilitate opportunities for our students to work on projects from external sources requiring the input, skills, and knowledge of multiple disciplines. These projects are grounded in solving real-world problems and issues brought forth by our partners in industry, government, and community organizations.”

Lessons learned in EPIC studios are reinforced and elaborated upon in ARCH 9600 Professional Perspectives.

B. Design

Studio pedagogy at Wentworth ensures that students bring critical thinking to their increasingly complex assignments. The iterative process of drawing, review, and critique ensures habits of thought and practice that result in successful solutions to comprehensive building design projects. This happens not only in individual studios but also across the curriculum as students progress through three foundation studios and three integrative studios to the concentrations and then to special projects and theses.

Preparation for thesis projects takes place with focused research strategies in ARCH 9200 and ARCH 9300 taught by faculty with degrees from Harvard, MIT, and Yale—several with PhD credentials. Rigorous evaluation of research conclusions becomes a standard procedure by the time students reach their fifth year of study.

Faculty with high expectations for student work teach throughout the curriculum. Cycles of conjecture, implementation and evaluation begin in first-year studios and are repeated every semester. Methods of research are addressed in history/theory courses as well as in studios and thesis preparation. Technical expertise which begins in structures, environmental systems, and concentration studies is evidenced in studio projects in ARCH 3500 Studio 06. The relevance of this curricular sequence is reinforced by a required co-op experience between third-year and fourth-year course work. New opportunities for added value are addressed in fifth-year thesis projects, ARCH 9500 Studio 10: Thesis.

C. Professional Opportunity

Wentworth students begin the transition from student to professional architect through two required co-op semesters—the first after their three foundation studios and the second between third- and fourth-year. [Jer Jurma](#), the Architecture Career + Co-Op advisor, has an extensive background in architecture and is a popular and effective mentor for architecture students as they prepare for their first work experiences. Ties with the local architectural community are supported by the newly formed Architecture Alumni Club.

The Architect Licensing Advisor (ALA) for the architecture degree programs is [Professor Charles Cimino](#). He regularly attends NCARB meetings in order to have current knowledge of NCARB policies and procedures and meets regularly with students to ensure their understanding of the requirements for

licensure, including the Architectural Experience Program (AXP). Students are required to take a non-credit course (ARCH 2222 AXP Architecture Experience Program) to prepare them for co-ops and internship. Professor Cimino also continues to be in touch with Wentworth students after graduation and often consults with alumni on registration issues.

Because we are located in the College of Architecture, Design and Construction Management, students have an opportunity through interdisciplinary studios to understand career choices other than architecture throughout the building industry. They can also minor in Business Management and in Construction Management. Wentworth graduates have assumed leadership positions in a wide variety of professional settings including construction management, structural and civil engineering, contracting, building management, industrial design, interior design, game design, and real estate. Wentworth alumni have a presence on every major building site in Boston and in the region.

D. Stewardship of the Environment

The Wentworth faculty has committed to teaching the values of environmental stewardship in every course. This includes the introduction of passive heating and cooling strategies in ARCH 2200 Technology 01 and energy intensive mechanical systems in ARCH 2700 Technology 02. The required structures sequence describes the characteristics of renewable structural materials. A review of how sustainability issues are highlighted in most topic areas consistently includes every studio course in the program and in many of the electives and seminars.

Courses that have most directly prepared students for assuming leadership roles on environmental issues include architecture graduate seminars (e.g. ARCH9700-04 "Design in the Anthropocene) and electives (e.g. ARCH3800-07 Net Zero Energy Housing), as well as humanities electives, such as SOCL3800 Special Topics: Climate Change, taught by Dean Hotchkiss, which explores the phenomenon and effects of climate change and responses to it from a variety of perspectives: sociological, economic, ethical, literary, and artistic. Also in fall 2017, the department acquired ArcGIS software in order to advance both students research skills and their understanding of the political, social and economic dimensions affecting design, through its introduction in the Urbanism concentration and its integration in graduate theses focused on urban issues.

Student leadership of the [Wentworth Environmental Collaborative](#) (WECa), formerly known as the Green Team, includes two architecture students (President & Vice President) who are currently working with faculty to set up a LEED Prep Exam course available to all students.

Additional Institute-wide initiatives include the following:

- The Institute has established recycling bins and supports recycling efforts campus-wide.
- There is an active program for reducing the carbon footprint and the power plant has recently been upgraded with more energy-saving components.
- The Director of Wentworth's Physical Plant, Bob Ferro, leads Wentworth's partnership with Boston Public Schools STRIVE program. Through the [Wentworth Training Program](#) including the Go Green Recycling Program and the Facilities Management Program, disabled high school students are provided with vocational training by working to pick up recycling in the Department and the greater Institute.
- The [Wentworth Sustainability Committee](#) includes representatives from across the Institute including faculty, staff and students.
- The recent Supply Closet initiative, established by Student Affairs, where the Wentworth community can donate school materials and business attire for student use.

E. Community and Social Responsibility

Examples of social responsibility as a core value include:

- "Empathy" is one of the "Big Idea Talk" themes tackled in the first semester of freshman year.

- The series of independent projects undertaken by students as facilitated by the Center for Community and Learning Partnerships (directed by Erik Miller, an alumnus of the Wentworth architecture program)
- Center for Community and Learning Partnerships with design/build studios taught by Rob Trumbour that designed, produced, and installed interior and exterior public spaces at two Boston YMCAs
- Cristina Lanzl's courses producing [Boston Cultural Assets Maps](#) with funding through Wentworth's EPIC program
- EPIC studios engaging community groups in every academic year

It is humbling to find the students taking the strongest lead in most of these efforts with faculty doing their best to keep up with student demand for meaningful engagement with communities in need—particularly in the Boston metropolitan area. There is now an active group of students pursuing Freedom by Design projects.

Connections with the larger architectural community in the Boston region include representation on the Board of the Boston Society of Architects (BSA) along with other Boston architecture schools, publicizing BSA events to students, and participation in the BSA Architecture Diary initiative.

I.1.5 Long Range Planning

Wentworth is dedicated to providing high quality practice-oriented education in architecture as well as a range of design and engineering disciplines. The Department of Architecture's mission and strategic plan is strongly grounded in this mission. At the Institute level, the Strategic Planning Steering Committee, including trustees, administrators, faculty, staff, students, and alumni established the [Wentworth Strategy Map](#), which was approved by the Board Trustees in November 2012. From this multi-year process, five strategic initiatives were identified:

- Creating transformational educational experiences,
- Embracing a culture of innovation and creativity,
- Positioning and promoting Wentworth,
- Enhancing institutional resources, and
- Organizational Efficiency: Engaging, empowering, and recruiting a diverse Wentworth community.

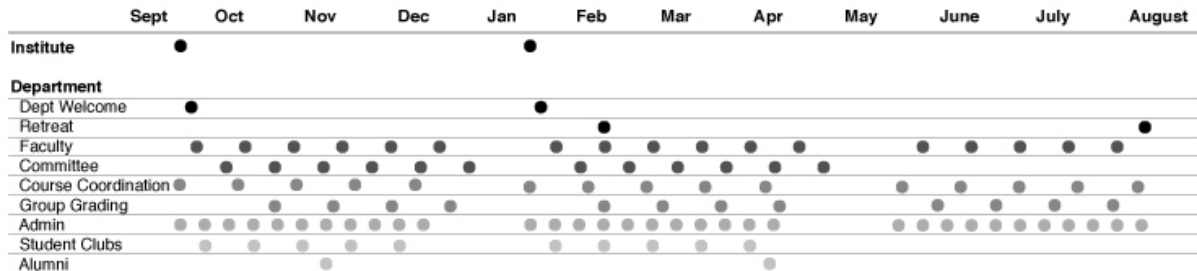
Architecture faculty and staff were involved with Institute level committees such as New Building Design Review, Co-op Advisory Board, Program Committees, Enrollment, Provost searches, Academic Plan, Academic Honesty, Sustainability, Library, Promotion, Sabbatical, Technology Advisory, and Facilities committees.

At the departmental level, starting in the Fall of 2011, the faculty and staff initiated a long-range plan that included full-faculty curricular review, assessment, and visioning meetings held between 2012 and 2017. Evaluation began with a SWOT analysis of our current curriculum in order to develop an improved curriculum, program, and processes. This resulted in major revisions to the B.S.Arch curriculum and a submission to the Institute Curriculum Committee (ICC) in November 2012, and a further revision, and [ICC submission](#), in April 2017. Special events in a regular sequence of biannual planning meetings include a Vision Retreat in 2014 with an outside consultant; a 2016 report to the Institute titled "A 5 year Vision for the Department of Architecture: Opportunities and Challenges;" and, most recently a review of the current mission and vision statements in the summer of 2017.

In addition to these department retreats, more frequent curricular evaluations and projections occur through committee work that is presented at the end of each semester in faculty meetings. Department committee work in the undergraduate curriculum is further broken down to foundations, technology, history/theory, and concentrations committees. The graduate program has held multiple focus groups regarding the development of the graduate-level thesis program. Course coordinators assess the outcomes of their courses by holding group grading sessions with all faculty members in a multi-section

course participating.

Fig. 1 Curricular Assessment Process



Programmatic and institutional planning initiatives are evaluated through faculty and staff committees such as the Graduate, Undergraduate, and Concentration Curriculum Committees, as well as the SummerFab, Enrollment and Recruiting, Publicity and Outreach, Center for Applied Research, Student Culture, NAAB Digital Accreditation, NAAB APR, and Faculty Search committees. Please see the [Committee List](#) for more information.

The strategic plan was informed by data from the following:

- Annual NAAB reports 2012, 2013, 2014, 2015, 2016
- Interim NAAB Progress Report 2014
- “A 5-year Vision for the Department of Architecture: Opportunities and Challenges” (describes undergraduate and graduate enrollment projections, human resources, facilities and physical resources)
- Wentworth Co-op and Careers Career Outcomes Reports, 2013, 2014, 2015, 2016 (describes average starting salaries, employment data, graduate school data, continuation of co-op employer, employers). For an example, see [Class of 2016 Comprehensive Report](#).
- Graduate Curriculum Focus Groups
- Department Self-Assessment Data
 - Student to Faculty Ratio: Studios, First year, Lectures, Summer, Studio
 - Full time faculty teaching loads
 - Male to female faculty ratios
 - M.Arch and BS Arch Enrollment and retention since 2008
 - Full time versus Part-time teaching loads
 - International student enrollment

Based on the above activities and data gathered, the Architecture Department has nested its strategic objectives within the Institute’s five strategic initiatives by:

Creating a transformational educational experience that explores the development of practice in the 21st century, particularly in respect to building, through an undergraduate curriculum that is divided into three concentrations; and a graduate curriculum that explores issues of cultural diversity; and two- and three-year external M.Arch. tracks that immerse students in making.

Embracing a culture of innovation and creativity that investigates the future of the profession, through the expansion of the Center for Applied Research (CfAR) which explores new modes of digital fabrications; initiation this year of a four-week summerFAB program which introduces high school students to design and fabrication; and the development of a program by Co-op and Career Services which provides an overview of building a portfolio, resume, cover letters, job interviews, professionalism, and networking.

Positioning and promoting Wentworth in order to build more program recognition and reputation within and beyond the New England region by committing department resources to increasing national and international admissions recruitment through department committees, faculty outreach during study abroad trips, attending international recruiting conferences and expanding our presence at recruiting fairs; developing an alumni association (WITAAC); and co-hosting the 2016 national AIAS Forum, a multi-day event that brought 800 architecture students to Boston

Enhancing institutional resources which builds on our practice-oriented education and places value on thinking through making by participating in the college-wide lecture series; mounting exhibitions and an internal lecture program; ongoing development of the digital fabrication lab, including the addition of a robotic arm in the CfAR.

Organizational efficiency that engages, empowers, and recruits a diverse Wentworth community by providing gender diversity in department leadership; weekly staff meetings; sharing of files digitally for improved communication amongst both staff and faculty; supporting students to lead events (co-hosting AIAS Forum 2016); development of student-led publications (*Wentworth Architectural Review*); support for a new NOMAS chapter in spring 2017; financial support for faculty development; and new policies for staff development at the department level.

The NAAB five perspectives—both the 2009 and 2014 versions—have influenced the curriculum through studio assignments, collaboration with other departments, and elective subjects offered. (Architecture and the Community; Design). Students are stakeholders in all perspectives from both editions of the *NAAB Conditions* and play a major role in long-range planning. They engage with the larger world through study abroad semesters and special topics travel studios; they engage with the professional world through the required two co-ops; and they develop leadership skills through clubs and section leader responsibilities (Architectural Education and Students; all five 2014 Defining Perspectives). Review of the perspectives at the two annual departmental retreats reinforces the need for support of the Architect Licensing Advisor, engagement by the architecturally-trained Co-op advisor, and continued offerings of non-credit courses that prepare students for their Co-op experiences (Architectural Education and the Regulatory Environment; Professional Opportunity). The perspectives influence Wentworth students to engage in the culture of professional architects as they choose to take part in student activities, host major events, establish student organizations, and participate in EPIC studios (Architectural Education and the Profession; Collaboration and Leadership). Community-oriented (Architectural Education and the Public Good; Community and Social Responsibility) initiatives resulting from long-range planning include long term commitments to community organizations through continuing studio assignments over multiple semesters. Examples of agencies involved include the Commonwealth of Massachusetts' Division of Capital Asset Management and Maintenance, the National Park Service, the YMCA of Greater Boston, the Boston University Museum, and the Massachusetts Department of Transportation. The new emphasis in the Defining Perspectives on Stewardship of the Environment has raised the level of commitment to environmental awareness in studio projects, in elective courses, in faculty research, and student activities – including participation in the Wentworth Environmental Collaborative.

I.1.6. Assessment

A. Program Self-Assessment:

Wentworth Institute of Technology has established a new Existing Program Review Committee that requires each academic program to conduct an internal review during the institute's 5-year cycle. There are also institution-wide planning and assessment events related to the 10-year cycle of institutional accreditation by NEASC and there are ongoing assessment activities of the Office of Institutional Effectiveness. The Architecture Department is scheduled to take part in this in 2019. In the meantime, a self-assessment process occurs annually in which qualitative and quantitative evaluations fuel discussion

on multi-year planning objectives such as curriculum improvement in the foundational, integrated, concentration, and thesis sequence in the undergraduate program and graduate program as well as programmatic and institutional planning initiatives. This process lays the groundwork for long-range planning, strategic initiatives, and strengthening the influence of the NAAB perspectives in our program. Review and assessment of the program, curriculum, and mission statement happens during biannual retreats. Faculty meetings happen bi-weekly during the semester; staff meetings happen weekly; and departmental retreats are twice a year (see fig. 3 in previous section).

Results from program self-assessment are evident in major revisions to the curriculum since the NAAB visit in 2012. Rubrics have been developed for every course and are regularly shared with students. Group-grading sessions have helped with consistency in evaluations of student work across the curriculum. At the Institutional level Student Learning Outcomes assessment continues to be solidly faculty driven. Given the relatively small size of the institution, architecture faculty play a significant role in overall assessment practices. Assessment of student learning outcomes for all majors occurs at the course, competency/skill, and overarching program levels. Course manuals are widely used as a method for collecting and subsequently reviewing students' achievement of course-level goals. The Architecture Department has begun using NuVu software to facilitate the assembling of these course manuals.

Assessment at the institutional level has made significant advances in General Education and Institute-wide learning outcome assessment since the previous NAAB visit. This progress was particularly aided and enhanced by the hiring of the Director of Accreditation and Institutional Assessment (title changed to Director of Institutional Effectiveness in 2017) in January 2014. The Institute has also committed resources to implementing a system, Blackboard Outcomes, which can be used to streamline the process of gathering and analyzing assessment data across the institution as a whole. Assessment efforts across these Institute-wide desired outcomes is, and continues to be, a focus for the future. The director provides support to all academic programs in their learning outcomes assessment efforts and has met with all divisions and departments to address their assessment needs and support increased rigor and best practices throughout the Institute. The director has advocated for and expanded the use of standardized rubrics, including using and building from the Association of American Colleges & Universities (AAC&U) Liberal Education & America's Promise (LEAP) VALUE Rubrics, within academic and co-curricular programs.

Although departments have been successful in examining the results of their assessment efforts and implementing changes within their own departments, at a broader general education curriculum level, aggregating information has been difficult. Although there was some overlap between the outcomes each department is assessing, there had not yet been discussions among the department faculty to ensure consistency of understanding and assessment of these outcomes in each department. And, although the departmental outcome statements had all been written with the Wentworth Student Learning Goals as a framework, these goal statements themselves were not well understood across the Institute, were not all measurable as written, and did not specifically call out which components were to be addressed by the general education curricula. This led to difficulties in mapping the General Education departmental student learning outcomes to the student learning goals for their aggregation and secondary assessment.

As a result of these identified issues, an ad hoc committee comprised of faculty representatives, the chairs of the three departments in the College of Arts & Sciences, and the director of Institutional Effectiveness convened. This group was charged with developing a comprehensive set of General Education learning outcomes that would represent the diverse set of skills and competencies students are expected to gain as a result of their General Education coursework. Members of the committee were responsible for taking draft statements back to their respective constituencies and ensuring they gathered feedback to inform the development of the statements. Final draft statements were sent to the Faculty Senate and Institutional Curriculum Committee (ICC) for review and approval. The ICC approved the General Education learning outcomes in April 2016. These institute-wide General Education learning outcomes will be used to guide all further aggregation of General Education assessment data. The Institute has begun implementing the Blackboard Outcomes module as a means for collecting,

aggregating, and conducting secondary assessment of General Education learning outcomes.

In addition to participating in Institute-wide assessment that directly affects the education of architecture students, department faculty and administrators have been engaged in a wide range of self-assessment activities, including a SWOT analysis; a vision retreat led by an outside consultant; committee work; course coordination meetings; course group-grading sessions; meetings to determine course rubrics; faculty annual reports and evaluations for teaching, scholarship, and service; and review of Wentworth students' passing rates for the Architect Registration Examination (ARE). External advisors meet twice a year to offer insights into new directions in the profession; visiting critics offer comparisons with other programs and with current professional issues; focus groups are held with students to provide an informal venue for gathering student input; and co-op assessments happen at the end of every co-op semester. (See [Self Assessment Policies and Objectives](#)).

B. Curricular Assessment and Development

For chart identifying parties in the curricular assessment process, see Fig.1 in Section I.1.5 above.

Students, alumni, and external professionals continue to contribute in the process described above through student course evaluations, student club leaders' annual meetings, WITAAC Alumni Association meetings, professional advisory committee meetings, jury reviews with external critics, and co-op evaluations. Faculty and staff have worked in committees to develop curricular and programmatic initiatives such as collaborative studios and expanded lecture events. Administrative staff meet weekly to discuss operations and administrative needs of the department resulting in better data collection for long- and short-range planning. Faculty teaching a given course meet to review the course content and the success in meeting course learning objectives and NAAB criteria. Review and assessment of the assignments and pedagogy in a multi-section course happen during group grading sessions. Based on faculty-wide discussions of curricular learning objectives, faculty review and develop course-specific rubrics against which assessment occurs. The rubrics are distributed to students with each syllabus, along with assessment sheets that follow each studio project, providing students direct feedback on their work while giving them a broader picture of their development and progress. The development of rubrics is also helpful in creating greater uniformity among the grading in different studios by defining expected levels of skill or achievement.

Section 2. Progress since the Previous Visit

Program Response to Conditions Not Met

Conditions Not Met

Visiting Team Report [2012]:

B. 2. Accessibility: *Ability* to design sites, facilities, and systems to provide independent and integrated use by individuals with physical (including mobility), sensory, and cognitive disabilities.

2012 Team Assessment: The criterion is not met. While the team found indications of barrier-free design understanding in classroom exercises, the team found no evidence in the studio design projects that students were able to transfer that accessibility understanding into their studio design projects.

B. 5. Life Safety: *Ability* to apply the basic principles of life-safety systems with an emphasis on egress.

2012 Team Assessment: The criterion is not met. The team could find no evidence in student

studio projects that reflected a consistent ability to apply basic life safety systems with an emphasis on means of egress.

Program Activities in Response [Year of previous visit [2012] – Year of APR [2017]]:

Per a change from the 2009 Conditions to the 2014 Conditions, B.2. Accessibility and B.5 Life Safety are now encompassed in B.3 Codes and Regulations. B.3 is fulfilled by two courses:

Within ARCH2200: Tech 01 and ARCH3000: Studio 06, students have been issued materials and readings that directly address accessibility and egress, occupant loads and basic life safety issues when designing buildings. See II.1.1 Student Performance Criteria, Realm B, SPC B.3, and project materials and examples of student work exhibited.

In addition, the Department has implemented a curricular change which further addresses accessibility and life safety. See the following related response below to Causes for Concern: A. Life Safety in comprehensive design.

Program Response to Causes of Concern

Causes of Concern

Visiting Team Report [2012]:

A. Life Safety in comprehensive design

The coordination between course work and studio introduces and articulates the principal content for life safety systems in buildings. In the classroom, egress systems are precisely calculated with consideration of occupancy loads. However, in the limited studio design projects presented, only a rudimentary sensibility for life safety is demonstrated.

Program Activities in Response [Year of previous visit [2012] – Year of APR [2017]]:

As outlined above, in Conditions Not Met, the Department has implemented a curricular change which addresses this concern.

The curricular change included delaying the introduction of the three Concentrations (Adaptive Interventions, Emerging Technology, Urbanism) one year, from second semester sophomore year to second semester junior year, thereby shifting them to later in the curriculum. The shift allows ARCH2500: Studio 04, ARCH3000: Studio 05, and ARCH3500: Studio 06 to be taught before dividing into concentrations. The reason was twofold. First, this focus provides greater faculty coordination in order to ensure that the Department meets the conditions not met in the 2012 NAAB VTR regarding B.3 Codes and Regulations: Ability to design sites, facilities, and systems that are responsive to relevant codes and regulations, and include the principles of life-safety and accessibility standards. In addition, the studios can now build a more focused sequence of experiences. Together the three studios now delve into the core conceptual and technical issues of integrated building design – systems, structure, enclosure, sustainability, materials, and many other concerns. At the end of this sequence, students will have a strong footing in the skills necessary to develop their architectural career.

Conceptually, the B.S.Arch curriculum now has three phases: Foundation (three semesters); Integration (three semesters); and Concentration (two semesters). Each phase is separated by a cooperative work experience. In the first three semesters,

students get a broad introduction to the field of architecture, which serves as the foundation for the curriculum, preparing them for their first co-op semester in the spring of their sophomore year. In the following three semesters, students complete the Integration phase of their studies, bringing together the various elements that are required for successful design. In the last of these three semesters, students begin the transition into their chosen concentration by taking a concentration seminar covering relevant history and theory. This phase is followed by the second required co-op semester, in the summer between junior and senior year. In the final two semesters, attention is focused on the students chosen concentration. Coursework includes another concentration seminar as well as a concentration- specific studio. In the two- and three-year M.Arch tracks, life safety is addressed in ARCH7300 Technology 1 and ARCH8500 Advanced Graduate Studio 02.

For more detailed information, see the B.S.Arch & 1-yr M.Arch [F17 Curriculum Chart](#) and the matrices for the two-year and three-year tracks.

B. Limited Shop Facilities; equipment and space

There is an evident relationship between new technologies, fabrication, and architectural design education. At Wentworth, the limited shop facilities are an impediment to the pedagogy of education as well as to faculty research. By organization first and second year students do not use the shops, and only fifth year M. Arch. students access the digital fabrication shop, and only for limited time periods.

Program Activities in Response [Year of previous visit [2012] – Year of APR [2017]]:

Over the past six years, the integration of the shop in the curriculum has made evident the relationship between new technologies, fabrication, and architectural design education. Major changes have occurred in recent years to the architecture shop(s), including the reconceiving of the shop into a Center, an increased focus on making in the curriculum, and increased student use, staff, physical space, equipment, and hours.

The Center for Applied Research & Its Mission

The Center for Applied Research (CfAR) in the Department of Architecture is a student focused collaborative environment for investigating emerging fabrication technologies and methods. CfAR supports the department's core principle of thinking through making by providing a dynamic network of spaces for prototyping and applied research. Students have access to equipment, expertise, and guidance across many areas of fabrication, including CNC milling, 3D printing, woodworking, laser-cutting, and robotics.

The structure for training and use is outlined on the [CfAR Instructional Sequence](#) diagram providing students, staff, and faculty with a clear "pathway for entry" to use these resources. Facilities and hours are publicly available on the [Center for Applied Research](#) (CfAR) website, resources, and training workshops.

Increased Focus on Making

The program has increasingly sought ways in which to advance its mission focused on making, including offering the following elective and required courses in which the curriculum is integrated with the CfAR:

- ARCH 3700 Architecture electives: one or two are offered every semester with a focus on fabrication.
- ARCH 5500 Studio 08 allows for design-build and EPIC courses focused on making.

ARCH 5500-04 & ARCH 5500-05, taught jointly, as well as ARCH 5500-06 are examples of this.

- ARCH 8650 Fabrication Methods is a required course for 2- and 3-year M.Arch students.
- ARCH 9700-03 Advanced Topics: Fabrication Methods for 1-year M.Arch students focuses on fabrication, including designing tooling for the department's new robotic arm.

Increased Student Use

The increased integration of making into the department's curriculum has led to a substantial increase in student use. At the time of the 2012 NAAB report, undergraduate students were granted access to the woodshop in their third year and digital fabrication tools were limited to graduate students. Presently, students are introduced to both the Carpentry Lab and Digital Fabrication Lab in their second year. From this point on, all students are granted access to advanced tools and equipment after completing additional training sessions. This model guarantees students are adequately trained while enabling them to use fabrication spaces, tools, and equipment regardless of their year.

Increased Staff

Increased demand, and the introduction of more complex, specialized equipment requiring development and deployment of more advanced training sessions required increased staff. A request for an additional Model Shop Technician position was outlined to the Institute in fall 2016, and a new Model Shop Technician, Evan Janes, joined the department in August 2017. The current Model Shop Technician, Chris Sledziona, was promoted to Lab Supervisor in May 2017. Together, they manage the space, coordinate with students and faculty to balance load, supervise student workers, and develop safe use policy and training sessions.

Increased Physical Space and Equipment

Five years ago, the shop facilities were located in three separate rooms totaling 862 square feet. Since then, we have demolished two walls between three rooms to create one larger space, and added an additional 663 square feet. We have updated the electrical system for the shop to accommodate new equipment and increased student use and are currently installing a new dust collection system. Significant equipment upgrades and changes in the shop began in the 2009/2010 academic year with the acquisition of our first laser cutter and CNC machine. Throughout the past eight years, new equipment has been introduced including a 4'x8' CNC router, 2 laser cutters, a vacuum former, a powder 3D printer, three plastic 3D printers, and in summer 2016, a new robotic arm. Physical space is further outlined in Part 3, Section 1.2.2 Physical Resources.

Increased Access

With the additional support provided by six graduate Section Leaders who each work eight hours per week in the CfAR, hours are extended. In the fall and spring, the CfAR is typically open 65 hours per week, and the schedule is made publically available on the website.

With expanded space, equipment, and hours, the CfAR is physically and pedagogically at the center of our department. The increase in student use has now created a need for more space, a challenge which is further outlined in Part 3, Section 1.2.2 Physical Resources.

C. External applicants to the M. Arch. program

As the new M. Arch. program evolves, an external student population is mandated by the state of Massachusetts. The future presence of this population is mentioned in the APR on several occasions. The introduction of transfer students from diverse BS Arch design cultures into the M. Arch. program poses a significant challenge to the curricula structure of the current program, as well as the successful ethic for design and research that is developed over four years in the Wentworth B.S. Arch. program. This student body defines the current M. Arch. program graduates.

Program Activities in Response [Year of previous visit [2012] – Year of APR [2017]]:

The ‘external’ two- and three-year students who enroll in the M.Arch program develop the same successful ethic for design and research that is developed over four years in the Wentworth B.S. Arch. program. We make Wentworth students out of external students by:

- ARCH8000 Graduate Foundation Studio 01 and ARCH7000 Advanced Graduate Studio 01 are structured as EPIC courses with a design/build component.
- ARCH 8650 Fabrication Methods is a required course for two- and three-year M.Arch students. This past spring, this course designed and built tooling for the department’s new robotic arm.
- CfAR Training: students are trained in both the woodshop and digital fabrication shop in their first semester, as part of an overall orientation to the Department and Institute.
- Laptop Initiative: as a Wentworth student, external two- and three-year students are provided a laptop fully provisioned with all software.
- Co-ops: all students can access all of the services of the Co-op + Career Center, and are advised to engage in an optional summer co-op.

In addition, the curriculum has been developed so that 3-year, 2-year and 1-year students are all integrated into the same curriculum in their final year of study. This is outlined on the [M.Arch Degree Paths](#) diagram and further described below:

The three-year Master of Architecture coursework includes Graduate Foundations Studios complimented with History, Theory, Structures and Technology courses. In the second year of the three-year degree, the three-year students enroll in the same curriculum as the incoming two-year Master of Architecture students, thereby joining them in design studio courses and other supporting coursework.

The two-year Master of Architecture coursework includes Advanced Graduate Design Studios. The department closely evaluates prior coursework to determine the required coursework for each individual student, ensuring the development of fundamental skill and knowledge sets.

To date the History/Theory, Tech, Structures sequences are merged with undergraduate courses. Faculty are required to hold graduate students to higher standards, and students are assessed based on Wentworth’s graduate grading scale. Three required classes will be offered for the first time in 2016-2017: 2D/3D Media Processes, Applied Research & Design 1, and Applied Research and Design 2, thereby allowing the two- and three-year students to progress sequentially through the comprehensive program.

The three M.Arch tracks are cumulative. After their first year, three-year students complete the same curriculum as entering two-year students. In their final year, all students complete the same curriculum. The one-year M.Arch program is in many ways defined by its thesis program, a year-long independent design project. While all students

admitted into the program demonstrate advanced ability in design, the thesis project represents design as critical inquiry and reflects each student's attempt to deepen and apply their skills in the service of increasing our collective knowledge of our discipline.

The thesis program begins in the fall semester with two foundational courses. These two courses operate symbiotically, generating ideas and research methods to ground individual thesis work and project execution. The Thesis Prep 1: Methods course focuses on the history, theory and criticism of contemporary architectural discourse. It expands on students' critical reading and writing skills in an effort to shape their own thesis documents, a form of design in and of itself. The Thesis Prep 2: Design (as) Research course focuses on investigations and projections in architecture and allied fields, drawing from theoretical, cultural, and cross-disciplinary sources. It serves as a springboard for critical reading, thinking, writing, and making in preparation for the spring thesis studio.

These courses run concurrently with the fall-semester Special Topics Studios which focus on contemporary architectural preoccupations to provide not only a transformative travel experience, but also to become an avenue for testing a particular method, a site, or an architectural question. These travel-based studios, begun in 2009/2010, offer all M.Arch students the chance to travel for an approximately ten-day period and to engage in contemporary global challenges in relation to architecture. On average, eight studios and correlating ten-day trips are offered each year. Locations change from year to year. These studios have focused on global issues in both national and international cities as diverse as Bali, Benin, Glasgow, Istanbul, Lisbon, London, Paris, Rome, Shanghai, New York, and New Orleans.

The spring-semester Thesis Studio is devoted to an in-depth investigation of a now-defined design research project of the students' own conception through an iterative structured methodology. While advisors shape the curriculum, define milestones, and play a supporting role suggesting possible approaches, techniques, methods, directions, or resources, each student retains primary authorship of the work produced. The Douglas D. Schumann Library and Learning Commons has partnered with the Architecture Thesis Program to create a comprehensive Thesis Specification. Students work throughout the year to create their thesis book, which is printed, bound and published in the library.

The introduction of transfer students from diverse BS Arch design cultures into the one-year program and Thesis program brings awareness of diverse education practices, peoples and cultures, fostering a robust graduate educational experience.

In addition, an Advanced Topics course provides students to focus on theory and architecture research topics, and a Professional Practice course provides students with knowledge to critically evaluate complex professional and ethical issues and to demonstrate leadership in reconciling diverse stakeholder needs.

Program Response to Change in Conditions

Program Activities in Response [Year of previous visit [2012] – Year of APR [2017]]

Three changes in conditions have been identified and are addressed. The first change in the *NAAB 2014 Conditions* is the addition of "Stewardship of the Environment," as one of the five new defining perspectives, which is unrelated to the former five perspectives in the *NAAB 2009 Conditions*. This change is addressed in Section I.1.4 Defining Perspectives: D. Stewardship of the Environment.

A second change in conditions is the new SPC A.4 Architectural Design Skills: Ability to effectively use basic formal, organizational and environmental principles and the capacity of each to inform two- and three-dimensional design. This change is addressed in four

courses throughout the curriculum, and further outlined in Section II.1.1 Student Performance Criteria, Realm A: Critical Thinking and Representation, SPC A.4.

A third change in conditions is the addition of Part 3, Section II.4.6, new public information requirements regarding Admissions and Advising. This information is further outlined in Section II.4.6 and matches our [Accreditation](#) page on our departmental website.

Section 3. Compliance with the Conditions for Accreditation

I.2.1 Human Resources and Human Resource Development

From FY 2011 to FY 2015, the Institute added 58 new positions, including 23 new faculty positions. In hiring new and replacement faculty, Wentworth continues to value industry and professional experience, but recent hires tend to have stronger academic credentials than their predecessors. Of 50 new and replacement full-time faculty hired beginning in FY 2011, 88% are doctorally qualified. New faculty members hold doctorates from the nation's most distinguished universities, including Massachusetts Institute of Technology, Yale University, Brown University, The George Washington University, and the University of Michigan.

Faculty professional development resources are outlined on the Office of Academic Affairs website, under Faculty Resources:

[Faculty Handbook and Faculty Resource Guide](#)

[Forms and Applications](#) – including applications:

- [Bistline Grant Application](#)
- [Curriculum Submissions Forms](#)
- [Faculty Academic Travel Fund Application](#)
- [Faculty Travel Emergency Contact Form](#)
- [Travel Expense Report](#)
- [Faculty Annual Evaluation Form](#)
- [Faculty Evaluation Rubric](#)
- [Presidential EPIC Mini-Grants Program Policies and Procedures](#)
- [Presidential EPIC Mini-Grants Program Application Form](#)
- [Presidential EPIC Mini-Grants Program Project Budget Form](#)
- [Promotion Forms](#)
- [Sabbatical Leave Application](#)

Faculty and Staff Benefits are outlined on the Administrative Offices & Services website, under Human Resources:

[Employee Benefit Overview](#)

[Faculty Benefits](#)

[Staff Benefits Overview](#)

[Faculty Resources](#)

Wentworth's faculty benefits package for full-time employees was enhanced most recently by

participation in the Tuition Exchange program. Through Tuition Exchange (TE), eligible Wentworth faculty and staff can apply for a scholarship for a dependent seeking to enter any of TE's 640 member colleges and universities as a first-time, full-time student.

There are 18 full-time regular faculty (with the presumption of continued employment) in the Architecture Department and for AY 2017-18 there will be two additional full-time term faculty appointments. There will be 30 adjunct faculty teaching in the undergraduate program and specially qualified full-time faculty teaching in the three graduate tracks. For further information, please see the [FT Faculty Matrix](#) and [Adjunct Faculty Matrix](#).

There is an interim chair for the Department and a director for the graduate program. Technical and administrative support is provided by a director of the study abroad program, an academic coordinator, an academic assistant, a director for the Center for Applied Research, and a fabrications lab technician. The department is also well-supported by our dean, Charles Hotchkiss, and the assistant to the dean, Keeran Hariprasad. Graduate students appointed as Section Leaders provide support to students and to faculty.

The architecture department averages a student to faculty ratio of 1:14. Dedicated desks are available for students at all levels and our retention rates since the start of the M.Arch program are shown below:

Fig. 3 Enrollment and Retention

	F'17	F-16	F-15	F-14	F'13	F'12	F'11	F'10	F'09	F'08	F'07	F'06
Applications			641	657	782	883	913	998				
Freshmen	151	126	132	126	178	210	211	206	219	265	294	289
Sophomores	94	100	93	128	136	150	145	167	180	196	179	200
as % of Freshmen	75%	76%	74%	72%	71%	71%	70%	76%	68%	67%	62%	64%
Juniors	91	85	122	125	119	126	158	167	179	173	164	159
as % of Sophomores	91%	91%	95%	92%	93%	87%	95%	93%	91%	97%	82%	87%
Seniors	83	121	120	116	125	155	161	179	173	157	153	166
as % of Juniors	98%	99%	96%	97%	99%	98%	96%	100%	100%	96%	96%	
MArch 1-yr applications	100	101	93	89	106	114	127	109				
MArch 1-yr accepted	88	85										
MArch 1-yr	78	73	82	85	84	85	84	78	85	73		
as % of Freshmen	44%	35%	39%	41%	38%	32%	29%	27%	27%	25%		
as % of Seniors	64%	61%	71%	68%	54%	53%	47%	45%	54%	48%		
MArch 2-yr applications	16	10	11									
MArch 2-yr accepted	13	7	7									
MArch 2-yr	3	0	3	3	1							
MArch 3-yr applications	15	10	13									
MArch 3-yr accepted	13	8	7									
MArch 3-yr	2	0	1	3								
TOTAL ENROLLED	502	505	573	580	642	726	759	797	836	864	790	814

Notes: For the purpose of this chart, studio registration is used to determine enrollment. The report is updated at the end of every semester.

Professor Charles Cimino is the designated Architectural Licensing Advisor. He has served in this capacity for over 10 years, is trained in the issues of AXP, meets regularly with students, and attends ALA training sessions organized by the NCARB.

Opportunities to pursue professional development exist through funds for international travel available from the Provost's Office, financial support from the departmental budget for domestic travel related to academic presentations, and sabbatical leave as defined in the union agreement. Faculty members remain current in their knowledge of the changing demands of the discipline, practice, and licensure by annual review and evaluation of their research agendas and the requirements for [Evaluation and Promotion](#). Most Wentworth faculty are practicing, licensed architects with academic credentials from some of the most rigorous architecture programs in the US. Many are published authors and are the recipients of internationally competitive funding for research projects. Please see [Faculty Scholarship](#) for a list of past and projected faculty research, scholarship, creative activities.

During AY 2017-18 Wentworth is developing a plan for reorganizing academic advising at the Institute. One of the goals is to reduce advising responsibilities for faculty and thus give them additional time for mentoring and scholarship by shifting technical issues to faculty in the College of Arts and Sciences, supported by specially-trained staff. In August 2017, the Institute promoted an existing staff member to Associate Dean of Academic Advising and Student Success, and announced a third Presidential Faculty Award for Advising (in addition to Teaching and Service).

Additional support services available to students include:

- [Student Service Center](#)
- [Center for Student Engagement](#)
- [Center for Academic Excellence](#)
- [Co-ops + Careers](#)

Staff development is supported by College of the Fenways (COF) Training and Development Workshops. Additional departmental staff support policies are on the planning agenda for AY 2017-18.

I.2.2 Physical Resources

General Description

Over the five-year period 2011 - 2015 the Institute invested over \$140.5M in capital expenditures including a new building, facilities improvements, equipment and technology upgrades. With the completion of the new Apartments at 525 Huntington Avenue in 2014 - a high end upper class student residence hall – Wentworth increased its bed count to 2,243 and now houses over two-thirds of its full time students. The new residence hall comprised \$50.4M of the total \$140.5M capital expenditure.

The breakdown of expenditures:

- \$33M Academic Building Projects
- \$26.4M Renewal and Replacement of Buildings and Equipment
- \$22.7M Technology
- \$5.9M "Other Improvements"
- \$2.2M Academic Equipment

That investment in facilities represents a major step forward in the quality of instructional spaces—particularly laboratory spaces—across campus. The investment has continued: in FY 2017, Wentworth spent approximately \$15 million on an extensive library renovation. During the past seven years, Wentworth has added and/or renovated over 211,000 square feet of academic and auxiliary space, a seventh of its overall campus area.

Campus Plan

The campus is comprised of 35 Buildings on 31 acres of land, much of it non-contiguous, in an urban environment bordered by the neighborhoods of Fenway, Roxbury (Mission Hill), and the South End.

- 1,370,000 GSF
- 1,100,000 NSF
- 880,000 ASF

13 Existing Academic Buildings (520,000 NSF)

- 68 Classrooms & Drafting Rooms (2,735 seats)
- 60 Specialty Labs & Studios (1,860 seats)

1 New Academic Building currently under construction (78,000 GSF)

- 1 Classroom & 3-D Maker Space
- 17 Specialty Labs

14 Residential Buildings (500,000 NSF)

- 141 Dorm Rooms (277 Beds)
- 58 Suites (527 Beds)
- 346 Apartments (1,439 Beds)
- Total: 2,243 Beds

8 Support and Service (80,000 NSF)

1068 Parking Spaces

Institutional Master Plans have been completed as follows:

- Strategic Plan 2006/2007
- Campus Master Plan 2008/2009
- Institutional Master Plan 2009/2010
- Planned Development Area 2012/2013

Annex North Building

The Department of Architecture's offices and studios are in the Annex North Building, with the use of various classroom and lecture spaces elsewhere on campus, particularly in Annex Central, Beatty Hall, and Wentworth Halls.

With the exception of three spaces used by Civil Engineering (a lab, a classroom and storage rooms, totaling 2700 sf), and mechanical spaces on the ground floor, all space within Annex North is dedicated to the Department of Architecture.

The Annex North building supports and encourages studio-based learning. It is comprised of three floors: ground, first floor and second floor. The ground floor consists of one large studio space totaling approximately 5500 sf, with 200 desks. The first floor is comprised of the main architecture office and conference room, all faculty and staff offices, the Center for Applied Research, and a studio space totaling 2500 sf, with 100 desks. The second floor is comprised of one large open studio space, totaling approximately 7000 sf, with 240 desks, which surround six centrally located critique rooms (Crit Rooms A, B, C, D, E, F), each totaling approximately 300 sf.

Studios

All students are currently provided with a dedicated studio desk, a positive outcome of the decline in enrollments in the past few years. Typically, first-year students and half of the sophomore students are on the ground floor, graduate students are on the first floor, and half of the sophomores, all juniors, and seniors are located on the second floor.

Critique Spaces

The ground floor and first floor studios each contain a small area for informal critique space. In addition to the six formal critique rooms on the second floor, there are also informal spaces, including Crit Room G, a large table at the entry, and areas outside of the crit rooms. Watson Hall is employed for end-of-semester reviews for the student work of all studio levels.

Center for Applied Research

The Center for Applied Research (CfAR) in the Department of Architecture is a student focused collaborative environment for investigating emerging fabrication technologies and methods.

The CfAR is comprised of five main areas, separated into two distinct, yet adjacent and complementary, carpentry and digital design areas. The areas consist of: 1) a traditional Carpentry Lab with all woodshop tools, which is open to a 2) CNC Lab with a vacuum former. Adjacent to these spaces are 3) a Digital Fabrication Lab which contains 3D printers and a robotic arm, which opens to a 4) Laser Lab with two laser cutters, and is supported by 5) an adjacent open space within the faculty offices comprising the Digital Design Lab, where dedicated computer stations are located for preparation of digital files and for digital workshops. A wide adjacent hallway is used for joint material storage and fabrication.

A plotter room provides all architecture students with access to two new high-speed plotters, and is staffed by work-study students.

Facilities and hours are publicly available on the [Center for Applied Research](#) (CfAR) website.

Classrooms

Fully mediated general classroom spaces are found throughout the campus, with most classes taught within Annex Central or on the second or third floors of Wentworth Hall.

Lecture Halls

Large lecture courses are held in the fully mediated Blount Auditorium in Annex Central (240 seats) or in the Beatty 426 Lecture Hall (92 students).

Library

In fall 2012, Wentworth opened the Flanagan Campus Center, which included renovations completed on the ground and first floors of Beatty Hall. In 2015, the Institute then turned to the renovation plans for the Alumni Library. Over FY16 and FY17, the Institute allocated \$15 million for library renovations, of which \$7.5 million was raised in private support. The budget for this important project goes well beyond the original \$5 million the Institute had planned to allocate in FY14 and allowed for a comprehensive renovation of the library. In honor of Trustee Emeritus Douglas D. Schumann's lead \$5 million gift to help fund the renovation, the library was renamed the Douglas D. Schumann Library & Learning Commons.

The newly renovated Douglas D. Schumann Library & Learning Commons opened in August 2016. The library is a central academic space supporting 21st century teaching and EPIC (Externally-collaborative, Project-based, Interdisciplinary Culture) learning. It includes 540 seats, within flexible, collaborative

workspaces and study rooms, as well as a variety of informal seating spaces and study zones with easy access to power and internet. See Part Three, Section I.2.4 Information Resources.

Departmental Offices

All departmental offices (Chair, staff and faculty) are located on the first floor of the Annex North building. The Dean of the College has his office within the Department. All full-time faculty are provided with private offices. Staff offices are shared spaces. The adjunct faculty are allocated an open office space, with lockable personal cabinets and storage.

Display Space

There are numerous areas in both the North and Central Annex where student and professional work can be displayed. Within Annex North, the outer lobby and inner lobbies serve as exhibit spaces for continually changing exhibits which highlight student work. The Casella Gallery near the entrance to Central Annex is the main exhibition space for the Department and College. It showcases student, faculty and sponsored exhibits. Each of the four departments in the College has a dedicated vitrine along the main corridor of Annex Central. At the entrance to the new library is the Guarracino Gallery, which showcases Wentworth student and faculty work and scholarship.

Berlin Facilities (Study Abroad location)

The Department of Architecture offers a semester-long [Study Abroad Program](#) for students in the B.S.Arch program in Berlin, Germany. The Berlin Program has been in operation since Fall 2003, led by Professor Rolf Backmann, and housed in a dedicated space located at Brandenburgische Str. 86, 10713 Berlin. There are two floors. Each floor contains one studio space for up to 16 desks, a lecture/review area, and a kitchenette and bathrooms.

Students are housed in nearby apartments. Ten fully furnished and equipped apartments (for 3 students each) are located at Adalbertstr. 61+63, 10179 Berlin.

For further information, including plans and photographs of the Berlin facilities, see [Study Abroad Berlin](#).

Description of any changes to the physical resources either under construction or proposed

Wentworth is currently constructing its first academic building in 45 years, a \$55 million building for engineering, innovation, and sciences, to open in April 2019. It will house the school's new Biological Engineering Program; its Biomedical and Civil Engineering programs; the Center for Innovation and Entrepreneurship; and a 3D manufacturing center. The four-story, 78,000-square-foot facility is located directly across the street from Annex North, in the center of campus.

Within the College of Architecture, Design and Construction Management, a new \$350K Building Information Modeling (BIM) lab, featuring three large flat-screen monitors with associated computer hardware and software, and seating for 20 students, will open in Fall, 2017. Located in Annex Central, the BIM lab is a shared resource with the Department of Construction Management and other users.

Space planning for the College will be revisited when Civil Engineering vacates offices and lab space on the lower levels of the Annex following the completion of the new academic building.

Identification of any significant problem

First, increased student use and more equipment in the CfAR has led to incremental growth that has reappropriated storage for faculty and students. It has also led to critical capacity and health and safety challenges within the shop. Specifically, the needs include an increased area, material storage, office

space/monitoring ability, ease of access, perimeter venting, and adjacency of a digital lab to prepare files. One way in which this concern could be addressed is by re-purposing space on the ground floor of Annex North when the Department of Civil Engineering moves into the new Multipurpose Academic Building. Another way in which this could be addressed is to create an interdisciplinary shop space within the College. This preliminary idea has been discussed at College Chairs meetings and in the Faculty Retreat this past summer. We are currently working on a Center for Applied Research Strategic Plan which will be submitted to the NAAB prior to our spring accreditation visit.

Second, there is a need for three staff offices and student and faculty storage. We could accommodate this by reappropriating studio space on the first floor or through space planning exercises as noted above.

A description of how the program provides space for faculty

Faculty offices are ample. A common workroom area provides faculty with kitchen facilities, printers/copiers and mailboxes. Storage for student work and student clubs is located around the perimeter of these spaces. There is one main conference room, a small conference room dedicated for adjunct usage, and two open areas with large tables for informal faculty meetings. A third large table is dedicated to work-study students, who work alongside faculty.

A shared adjunct office space includes a large table, and lockable cabinets and file drawers assigned to each adjunct faculty member at the beginning of every semester. A small office is designated as an adjunct faculty conference room.

For more detailed information regarding Physical Resources see [Annex North Floor Plans](#), and photographs of Wentworth's College of Architecture, Design and Construction Management spaces: [Annex Central Classroom](#), [Blount Auditorium](#), and [Casella Gallery](#).

I.2.3 Financial Resources

Institutional Process for allocating financial resources

A Budget Kickoff meeting is scheduled each year at the beginning of March. The Office of Business and Finance provides budget managers with the following resources:

- One Page – How to Create Your Operating Budget
- Presentation – Instructions for Budget Mangers
- Budget Timeline

The "One Page" and "Presentation" documents are instructions for completing yearly budget development in Banner. The Presentation version is a series of PowerPoint slides with actual screenshots of each step used in Banner to create yearly proposed budgets. The Budget Timeline and Timeline with Calendar files list key dates throughout the process.

The Banner system is then opened and budget managers work to develop their budgets. Training sessions are provided for budget managers who are new. All budget development and processing is required to be posted by mid-March for the following fiscal year, which starts July 1.

Fiscal Year End Deadlines

Accounts Payable - Friday, July 14th 3pm

Petty Cash - Wednesday, June 28th 10am

Departmental Deposits - Thursday, June 29th 3pm

Operating Budgets

Approved operating budgets can be found online in Banner. Training sessions and presentations are

provided on how to access your approved budget within the Banner system and Leopard web.

Capital Budgets

A pool of capital funds is set aside for capital purchases in every fiscal year. The pool was \$750,000 for FY '16 and the same for FY '17. Capital requests at Wentworth are considered as follows:

Building Improvements

- Alterations or renovations valued at \$1000 or more
- Adds useful life to the building

Equipment or Equipment Repair

- Valued at \$1,000 or more, and
- Has a useful life of 3 years or longer

Program Initiative

- A new activity or revision to an existing program.

If there is a need, Budget Managers may prepare a "request" and review with their Division Head by either utilizing the attached form, or submitting an e-mail proposal. The Division Head then brings the request to the President's Administrative Council (PAC) for consideration. Capital requests may be submitted throughout the fiscal year. FY '17 capital requests approved for Architecture included Architecture Hallway Shades and the Kuka Robotic Arm.

New Positions

New Positions are created in PeopleAdmin. New position requests are reviewed by (PAC) and are incorporated into the FY18 operating budgets. FY '17 new position requests approved for Architecture included the Shop Technician position (and promoting the current Shop Technician to Shop Supervisor), and a temporary staff support person.

Expense Categories of program

Architecture Annual Budget

71010	Office Supplies	\$8,000
71020	Books	500
71030	Subscriptions	500
71050	Coffee	500
71060	Instruction Supplies	6,000
71061	Computer Hardware Supplies	2,500
71760	Postage	1,500
72010	Printing and Copying	6,000
72020	Advertising	10,000
72030	Photography	0
72040	Promotional Materials	12,000
72520	Misc Accounting Services	0
73520	Equipment Maintenance	12,000
73710	Staff Lunch Dinners and Receptions	2,000
73720	Faculty Lunch Dinners and Reception	2,000
73730	Student Lunch Dinners and Reception	1,000
73810	Staff Travel	5,000
73820	Faculty Travel	2,000
73830	Student Travel	4,000
73910	Staff Conferences and Seminars	4,000
73920	Faculty Conferences and Seminars	2,000
73930	Student Conferences and Seminars	3,000
74270	Professional Services	0
74270	Consultant Services	2,000
74355	Cafeteria Services	3,500
74410	Small Tools	3,000
74510	Honoraria	4,000
74710	Awards	1,000
74760	Permits and Licenses	600
74770	Memberships and Dues	5,000
74850	Petty Cash	1,000
76120	Goods for Resale Revenues	1,000
	TOTAL	\$105,600

M.Arch Annual Budget

71020	Books	0
71030	Subscriptions	0
71060	Instruction Supplies	0
71770	Shipping	0
72010	Printing and Copying	\$5,000
72020	Advertising	5,000
72040	Promotional Materials	10,000
73710	Staff Lunch Dinners and Receptions	0
73720	Faculty Lunch Dinners and Reception	1,000
73730	Student Lunch Dinners and Reception	5,000
73810	Staff Travel	8,000
73820	Faculty Travel	0
73830	Student Travel	5,000
73910	Staff Conferences and Seminars	0
74410	Small Tools	0
74510	Honoraria	0
74770	Memberships and Dues	1,000
76010	Event Expenses	0
	TOTAL	\$40,000

Revenue Categories of program

Revenue Categories of the program are as follows:

- Support for expenses as outlined above comes from the Institute.
- Study Abroad fees support the Berlin facilities, faculty salaries and student travel.
- Gifts support small projects for the department and the CfAR.

Financial State of Institute

95% of the Institute's FY '16 revenues were linked to tuition, room and board; this increased to 97% in FY '17. Academic programs at the Institute are primarily supported by tuition revenue, which is not allocated to specific programs, with the exception of graduate programs in the College of Professional and Continuing Education (CPCE).

Information from the Budget Manager Forum, 2016:

Endowment

- Began FY '16 at \$89.4 million; at January 31, 2016, value stood at \$80.9 million
- Will provide a 3.5% of operating budget in FY '16, but only .8% in FY '17, as funds are diverted to fund construction of the new academic building.

Debt

- Approximately \$100 million as of 12/31/15
- New debt tied to auxiliary producing activity
- Moody's rating= Baa1, Stable Outlook

Revenue

Tuition*	\$131M*
Auxiliaries	\$31M
Endowment	\$4M
Gifts	\$1M
Other	\$1M
Total	\$168M

Day Undergraduate	\$121M
CPCE	\$7M
M.Arch	\$3M
Total	\$131M

Expenses

Labor & Benefits	\$60M.
Student Aid	\$47M
Supplies & Services	\$35M
Depreciation	\$15M
Interest	\$4M
Total	\$161M

Wentworth has generated a fiscal surplus for 20 consecutive years.

Scholarship, fellowship and grant funds available for student or faculty use

Scholarship and fellowship funds available to students include:

- Federal work-study money
- Section Leader fellowships
- Merit Fellowships
- Scholarships
- Student clubs funding through both the Department and the Institute

Academic Works is an online scholarship application for Wentworth's Endowed Scholarship program. Links and information (description and award) are located there. Most scholarships are for undergraduates. Students can apply for scholarships through L-Connect from February until June 1st. They are awarded the scholarships and notified in September. Faculty and staff are not typically notified of awards, due to confidentiality.

Listing of WIT Endowed Scholarships that pertain to Architecture:

Albert Dacko	Preference for students from metropolitan Boston, enrolled in architecture program, and who demonstrate financial need.
Thane Pearson Memorial	Student majoring in architecture, leadership in community, US citizen.
Chapman Construction	This scholarship is awarded annually to students majoring in architecture, construction management or facility management with a deep interest in sustainability.
Columbia Construction	Scholarship for students majoring in architecture, civil engineering and construction management, who are interested in working as a project manager in construction management. This scholarship is for one semester. It can be used for the fall, spring or summer semesters.
Ernest Soule	Awarded to a student enrolled in architecture or construction programs.
Joshua Bent	Candidates must be full-time undergraduate students in good academic standing, majoring in architecture with a preference given to students who graduated from Masuk High School in Monroe, CT.
Michael Piccarini Memorial	Candidates must be full-time undergraduate students entering their second, third, or fourth year, majoring in architecture or architectural engineering at Wentworth. Candidates must be in good academic standing, American born, and residents of Massachusetts. Preference is given to residents of Weymouth and the surrounding area. This scholarship is renewable, if no other student meets the above criteria, the current recipient maintains good academic standing, and continues to have financial need.
Perini Corporation	This award is to assist the education of a sophomore or junior, with demonstrated financial need, who are United States citizens and reside in New England, and are enrolled in an accepted engineering or architectural program. Preference for civil engineering majors, (if available a student with an interest in environmental engineering) architecture, or other construction related programs. Preference for candidates expressing interest in public service, or military or who's family member has honorably served the United States.
Turner Construction Company Bridge Scholarship	Awarded to freshmen or sophomores for students majoring in architecture, civil engineering, construction management, electrical engineering, electromechanical engineering, or mechanical engineering, students who participate in the Wentworth's Center for Community and Learning Partnerships' Boston Pipeline Initiative Program (first years), provide recommendations from high schools (first years), maintain a 3.0 GPA and demonstrate financial need. Preference for female students from Boston.
Turner Construction Company Upperclass Scholarship	Awarded to juniors or seniors that are majoring in architecture, civil engineering, construction management, electrical engineering, electromechanical engineering, or mechanical engineering, students must maintain a 3.0 GPA and demonstrate financial need. Preference will be given to female students, can be renewable
Dirlam Family Charitable Trust Scholarships	Provided to students from Massachusetts who demonstrate academic excellence or financial need are are majoring in architecture. Preference shall be given to students who are from Marblehead or who residents of Essex County. Up to four students
Commodore Builders Scholarship	Provided to a female student who is majoring in either architecture, civil engineering or construction management. Entering sophomore, junior or senior year, has a GPA of at least 3.0 and has financial need
Sean Paradis Memorial Scholarship Fund	Offered first to a Pelham HS student majoring in architecture and that plays lacrosse, second to a student majoring in project management, third to a Pelham HS student attending WIT, fourth will be a local HS near Pelham

John J. and Kaka M. Savasta Endowed Scholarship Fund	Awarded to architecture students with a demonstrated financial need for the purposes of studying abroad
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Corporate and Foundation Relations

[Scholarship Donors](#)

Giving Priorities

[Current Use & Endowed Scholarships](#)

For faculty support, refer to Section 3.1.2.1 Human Resources and Human Resource Development.

Pending or planned changes

We do not anticipate increases or decreases in enrollment, nor do we anticipate any changes in funding or degree of investment. The Strategic Plan for the Institution ends in December 2017. A new Provost has started this summer, and we are anticipating starting participation in a new strategic plan this year.

I.2.4 Information Resources

Library Facilities

In 2015/2016 the former Alumni Library underwent a complete renovation. In September 2016, it was renamed and opened as the Douglas D. Schumann Library & Learning Commons. The renovated Library is a dynamic, technology-driven space specifically designed to support collaborative learning and 21st century research. The library is open 7 days per week (100 hours in total) during the semester, and offers extended hours during final exam periods.

The collection includes physical and digital access to books, journals, databases, and multimedia, with new resources added regularly. To ensure students have all they need to make projects successful, the library provides access to cutting-edge technology tools, printing and scanning services and lends technology resources and materials. In addition, Librarians and staff are available to help with research, citations, and requests for library materials.

The Library also provides the Guarracino Gallery, which showcases Wentworth student and faculty work and scholarship, including architectural models and design documents.

Overview of Facilities

- 540 seats with easy access to power & network
- 8 reservable, high-tech group study and collaboration rooms (for 6-8 students)
- 1 Program Room (high-tech classroom for up to 28 students)
- Quiet Study Reading Room
- 1 color plotter/scanner
- 4 color printer/copier/scanners
- 2 overhead camera scanners
- 12 public PCs and 2 Macs

Library Services

The Schumann Library & Learning Commons is staffed by an experienced group of professionally-trained

librarians, all of whom have an American Library Association (ALA)-approved Master in Library Science (MLS) degree. Some have additional graduate degrees. The FTE equivalent for FY17 is 11.0 librarians and 3.0 other personnel.

The Library uses a liaison model to support departments, with one Reference & Instruction Librarian dedicated to supporting the needs of the Architecture Department. Librarians offer individualized research and project support to both faculty and students, as well as “bibliographic instruction” classes on research skills, thesis topic selection, citation management, selection and evaluation of information sources and information literacy.

The Library actively seeks to collaborate with students on capstone and other projects and provides funding for design projects which support innovative library services or technology.

Services Overview

The Library provides personalized support and “traditional” services for students and faculty:

- Research Instruction (in class and one-on-on)
- Ready reference
- In depth faculty research support
- Interlibrary loan
- Course reserves
- Book / Resource purchasing
- Exhibits of student and faculty work
- In-Library technology support

Technology Sandbox

Located on the 2nd floor, the Tech Sandbox is a Maker Space where students can engage with new and emerging technologies through hands-on use, and can borrow cutting-edge hardware and software. Self-service 3D printing and 3D scanning, a desktop CNC milling machine and access to SolidWorks, AutoCAD and other design software are available here.

Printers and Scanners

- Print centers on both the 2nd and Mezzanine floors, with 4 color/black&white printer/scanner/copier stations.
- 2 tabloid size flatbed scanners and 2 “KIC” Click overhead scanners located on both 2nd and mezzanine floors.
- 12 PC computers available on 2nd floor for public use.
- 1 Color plotter scanner/printer available on mezzanine level near elevator for large format printing and scanning.

Fenway Library Consortium, Fenway Libraries Online & Interlibrary Loan

The Schumann Library & Learning Commons shares an online catalog of more than 1.1 million items with members of the Fenway Libraries Online (FLO) Consortium. Materials not available through FLO can be requested through the Library’s participation in OCLC/World Cat, an international bibliographic database and interlibrary loan source of more than 72,000 libraries and information centers in 170 countries providing access to more than 1.9 billion items. In addition, Wentworth students can use their WIT ID to access materials and check-out books at the following area libraries:

- Mass College of Art & Design
- Mass College of Pharmacy and Health Sciences University (MCPHS)
- Wheelock College

- Emmanuel College
- Simmons College
- Emerson College
- Lesley University
- New England Conservatory of Music
- Roxbury Community College
- University of Massachusetts Boston
- Suffolk University
- Museum of Fine Arts Library (collections must be used at the MFA Library)
- Boston Public Library (students are eligible for a BPL Library card)

Museum Passes

Students and faculty can borrow free passes to visit the following museums:

- Museum of Fine Arts; Isabella Stewart Gardner Museum; Design Museum Boston

Strengths of Library Collections and Support for Architecture Programs

- Well-developed collection of books and periodicals in architecture and design emphasizing the history and theory of architecture, monographs on key architects and firms, sustainable design, adaptive interventions, emerging technologies, and urbanism.
- Current building standards and codes including USGBC *LEED guidelines*, *International Building Codes*, *Massachusetts Building Code*, *Architectural Graphic Standards*, *Time-Saver Standards*, and the *AIA Handbook of Professional Practice*.
- Association of Architecture School Librarians' Core Periodicals, many in both print and electronic format, as well as most of the supplementary periodicals
- Collection of WIT architecture theses
- Topical Subject and Course Guides
- Curated collection of online databases, eBooks, and streaming video to buttress the collection:
 - Academic Search Complete
 - Art Full Text
 - Art Index Retrospective
 - ARTstor
 - Avery Index to Architectural Periodicals
 - Boston Globe Historical Newspaper
 - Building Green Suite
 - CumInCAD
 - Films on Demand
 - JSTOR
 - Kanopy
 - Material ConneXion
 - Oxford Art Online
 - RS Means Cost Estimating Books
 - Oxford University Press Very Short Introductions
- Information Literacy and outreach efforts in 2016 were delivered in a variety of ways:
 - Large group presentations to undergraduate and graduate students
 - Small group presentations/workshops in the classroom
 - Class hands-on sessions in the Library to help students with precedent research assignments

- Formal and informal 1:1 research consultations with faculty and students
- Welcome letter and short presentation at kick-off for graduate students
- Create undergraduate and graduate subject/course web-based guides
- Participate desk crit session to review graduate student bibliographies; drop in program
- Development of rubric for self-assessment for research (graduate students)
- Assisted with thesis specifications document and citation support

Civil Engineering (CE) is a major at WIT; architecture students benefit from library resources.

- Well-developed collection of books in structural engineering and materials
- Topical Subject Guide
- Curated collection of online databases, ebooks, and streaming video to buttress the collection
 - McGraw Hill AccessEngineering (searchable ebook collection)
 - Alexander Street Engineering Case Studies (streaming video)
 - American Society of Civil Engineers Digital Library
 - American Society of Mechanical Engineers Digital Collection
 - ENGnetBASE (handbooks and encyclopedias in engineering)
 - Institute of Electrical and Electronic Engineers Xplore Online Database
 - Knovel Answers in Science and Engineering

Construction Management (CM)

Construction Management (CM) is a major at Wentworth; architecture students benefit from library resources.

- Well-developed collection of books in construction management and business. Subjects also include real estate, construction law, and development.
- Topical Subject Guide
- Curated collection of online databases and ebooks to support the business side of construction and professional services.
 - ABI/INFORM (Part of ProQuest Central)
 - American Society for Testing Materials Standards – 2016 entire set
 - Business Insights: Essentials
 - Hoover’s Company Reports
 - LexisNexis Academic
 - Privco
 - Statista

Overview of Collections

• Physical Books:	51,340
• Digital/e-Books:	292,719
• Physical Journal Titles:	209
• e-Journal Titles:	71,346
• Physical Videos (DVD):	1,808
• Streaming Videos:	36,827
• Online Databases:	75

Architecture Collections

Hardcopy books/DVDs total count:	14,299
“Owned” eBooks count:	3,440
Streaming Video:	17,969

For additional information, please see [Library Budgets & Usage](#).

Opportunities for Improvements in Library Services

Currently, the Library works with the Architecture Department to bind, catalog and preserve the M.Arch Program theses. The process for doing so can be time consuming and somewhat arduous. A clear way to improve the process of preserving this important intellectual output of the Architecture Department would be to acquire and deploy an Institutional Repository (IR) application that would preserve, index and make easily available digital copies of the Wentworth M.Arch theses. At this point, we do not have an IR system available. We are working with Architecture to define IR requirements and to identify and test possible solutions. We hope to have a pilot system ready in the spring of 2018.

Another area for improvement is teaching and support of Masters level research skills to M.Arch students. M.Arch students spend a lot of time in studio, so it's often difficult to reach all of them for more advanced research instruction and support. We are planning to work with the Library staff to develop a rubric and learning outcomes on a Research Methods module that students can take online. We believe this will allow us to reach more MArch students that we might otherwise be able to reach.

I.2.5 Administrative Structure & Governance

Wentworth Institute of Technology maintains a system of governance that facilitates accomplishment of its mission and purposes, and supports institutional effectiveness and integrity.

The Board of Trustees is the governing body ultimately responsible for Wentworth's quality and integrity. The Corporation Bylaws articulate the roles of Wentworth corporators, trustees, officers of the Corporation and the president. The Corporation grants the Board of Trustees the authority to hire the president and annually evaluate the president's job performance. As a private, not-for-profit institution, the Institute has no outside sponsoring agency and has the independence to meet the Commission Standards for Accreditation. The president of Wentworth, as the chief executive officer, whose authority is vested through the Board of Trustees, is responsible for implementing all policies enacted by the Board of Trustees, and is the executive agent and chief advisor to the Board of Trustees.

The Board of Trustees is structured to maintain regular and effective channels of communication among its members and with the larger institutional community. There are presently nine standing committees within the Board of Trustees that enable it to carry out its primary role to advance the Institute mission and to monitor the academic and fiscal health of the institution: the Executive, Finance, Academic Affairs, Investment, Long-Range Planning, Development, Audit, Facilities, and Trusteeship and Governance Committees. Each of these committees is charged to meet regularly and report on its activities to the Board of Trustees, with the Executive Committee being responsible for overseeing the work of all other committees within the Board. This work ensures that the Board identifies, assesses, and manages risks and ensures regulatory compliance. The Wentworth community is informed of the work and policy-setting decisions of the Board of Trustees primarily through the president, who delivers a "State of the Institute" address to the faculty, administration, and staff at the start of each new academic semester, and as needed. Students and other key members of the Wentworth community are kept abreast of significant policy-making decisions and institutional activities through written communications from either the President's Office or other appropriate offices.

The Board of Trustees conducts orientations and trainings on fiduciary responsibilities, most recently facilitated by an Association of Governing Boards for Colleges and Universities (AGB) representative in fall 2015. At the fall 2015 annual retreat, the Board also had a session on increasing governance effectiveness and the strategic nature of their work. All Board members whose terms are up for renewal provide a self-evaluation of their performance which is reviewed by the Trusteeship and Governance Committee prior to their reappointment. In fall 2015, a revised self-evaluation process was implemented to capture feedback from Trustees completing their first year to understand their experiences and committee service and to allow for possible reassignment to new committees.

The [Wentworth Institute of Technology Organizational Structure Chart](#) is publicly available on the Institute website under About Wentworth.

In addition, there is a College of Architecture, Design and Construction Management, or [CADCM Organization Chart](#).

Internal Governance

As provided by Article IX of the Bylaws, the president is responsible for all educational and managerial affairs, and is also given the authority to implement all Board of Trustees policies. In order to ensure that policies, as established through the Board of Trustees, are developed in consultation with various constituencies within the Institute, the president conducts bi-weekly meetings with a President's Administrative Council (PAC). This council consists of the provost, vice presidents for enrollment management, student affairs, institutional advancement, business, human resources, and finance as well as the chief of staff. The PAC discusses prospective new administrative policies and other new initiatives at the Institute. Various meetings with senior officers of the Institute occur regularly to keep the community at large informed of significant policy-making decisions and institutional activities. For example, the vice president of finance addresses all budget managers at the start of preparations for new budget and capital request proposals. The provost addresses all faculty on new initiatives at least twice a year and the vice president for student affairs addresses students at a series of gatherings throughout the year. The Wentworth portal, LConnect, is used to post announcements, and has permanent sites reporting on the status of the strategic plan. It contains links to various administrative departments, minutes of the PAC meetings, and provides another direct means for the president to reach the entire community. Alumni receive information through the Wentworth Alumni Association's president, who is also a Board member (ex-officio), the president and the vice president of institutional advancement. External constituents, such as the Wentworth Industrial Professional Advisory Committees for each program, are addressed annually by either the president or provost.

The Executive Leadership Council (ELC), comprised of the president, vice presidents, chief of staff, associate vice presidents, and academic deans, is designed to be an overarching "working group" of senior leaders that examines and recommends action on issues of critical importance to the Institute. The purpose of including such a wide range of viewpoints is to bring as much diverse thinking to the table as possible, to facilitate interdepartmental communications, and to further facilitate the dissemination of information to all departments at Wentworth. In recognition of the importance of connecting many people in leadership positions to the strategic plan, it was recently decided to merge the Executive Leadership Council with the Strategy Realization Team (SRT) to increase transparency and communication.

The Provost holds bi-weekly deans council meetings, as well as academic council meetings which include all academic deans and faculty senate representation, and serve to develop, guide, and implement Institute-wide academic strategies and efforts.

Full-time faculty serve on the Faculty Senate, Faculty Federation Executive Committee, Institute Curriculum Committee, Graduate Programs Committee, New Program Committee and Existing Program Review Committee, Student Experience Diversity Committee, as well as ad-hoc Task Forces and faculty, dean and department chair search committees. Regular assessments of programs and academic resources are conducted by faculty who then make their recommendations for improvements to either the department chair, dean, Faculty Senate, or provost depending upon the item. Full-time faculty assist department chairs by leading self-study assessments or coordinating the activities of adjuncts. Full-time faculty also assist with activities associated with institute-wide program assessment or in the preparation of self-study materials for national program accreditations. This faculty function is always an advisory rather than a management function in all situations throughout the Institute. The Institute recently has had turnover in key positions including the provost and registrar. Faculty Senators, Faculty Federation representatives, and Institute administration participated in determining the interim provost. In addition, faculty representatives were involved in the search for the current provost and registrar.

The chair of the Faculty Senate and the president of the Faculty Federation meet at least monthly with the provost and president to consult on issues and Institute initiatives as they affect faculty and working conditions, identify and solve potential problems in advance, and to keep open lines of communication.

A Student Government representative regularly meets with the provost and dean of students to share concerns and ideas raised by the student body and for staff members to ask questions of the students. The president meets monthly with the Student Government Association's president. PAC meets with the Student Government Association's Executive Committee twice a year and individual vice presidents meet with Student Government regularly to brief them on important issues.

II.1.1 Student Performance Criteria

REALM A: CRITICAL THINKING AND REPRESENTATION occurs throughout the Undergraduate and Graduate curricula with NAAB SPC's formally addressed in the foundations sequence (semesters 1,2,3), reinforced in History/Theory courses, and again in the final year. Critical thinking and representation are emphasized in design problems that are grounded in the tangible and material nature of architecture, where students develop strong analytical skills and expertise in synthesizing architectural ideas through verbal and visual representation.

A.1 Professional Communication Skills: Ability to write and speak effectively and use representational media appropriate for both within the profession and with the general public.

Track One: Single Institution

- ARCH 1000 Studio 01 This foundation studio focuses on techniques of visualization and representation (freehand drawing skills and model making) as they pertain to beginning design. Students develop fundamental design skills through orthographic drawing (plan, section & elevation), perspective drawing, model making and diagramming.
- ARCH 2600 History/Theory 02 - This lecture course introduces the close connections between the built world and social and political developments. Students study economic, social, ecological and technological factors that impacted architecture from the 18th to the 20th Century. Students explore these relationships through analytical sketches, class discussions and short writings.
- ARCH 9300 Thesis Prep II - This course begins the year-long process of creating an individual thesis research. Thesis Prep II focuses on investigations and projections in architecture and allied fields, drawing from theoretical, cultural, and cross-disciplinary sources. It serves as a springboard for critical thinking, writing, and making in preparation for the spring thesis studio.

Track Two: Pre-professional plus Two

- ARCH 9300 Thesis Prep II - This course begins the year-long process of creating an individual thesis research. Thesis Prep II focuses on investigations and projections in architecture and allied fields, drawing from theoretical, cultural, and cross-disciplinary sources. It serves as a springboard for critical thinking, writing, and making in preparation for the spring thesis studio.

Track Three: Undergraduate plus Three

- ARCH 7350 2D/3D Media Processes - The course introduces and applies fundamental manual drawing techniques and logics essential to the development of spatial and critical thinking skill sets and practice as well as digital two-dimensional and three-dimensional translations. Students learn how to constructively evaluate their own work and work of their peers.
- ARCH 7550 Graduate History Lecture 02 - This seminar builds on core themes and topics introduced in Graduate History Theory 01. This course surveys world architecture, urbanism and landscapes from 1700 CE to the present day. Graduate students concentrate on focused research and themes as designed by the History Theory Faculty. Critical Writing and research at the graduate level is emphasized.

- ARCH 9300 Thesis Prep II - This course begins the year-long process of creating an individual thesis research. Thesis Prep II focuses on investigations and projections in architecture and allied fields, drawing from theoretical, cultural, and cross-disciplinary sources. It serves as a springboard for critical thinking, writing, and making in preparation for the spring thesis studio.

A.2 Design Thinking Skills: Ability to raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well-reasoned conclusions, and test alternative outcomes against relevant criteria and standards.

Track One: Single Institution

- ARCH 1500 Studio 02 - In this studio course, student work focuses on translating precedent study to design problems using formal, structural organizational, and fundamental passive environmental strategies to develop small projects (retail store and dwelling-like retreat space) through two dimensional drawings and three dimensional physical and digital models.
- ARCH 5500 Studio 08 - This studio course proposes design topics grounded in a research agenda that informs the design process. The students formulate clear and precise research questions, develop conceptual ideas through which to evaluate relevant and diverse information, and develop criteria against which to evaluate alternative design studies.
- ARCH 9500 Studio 10 Thesis - Students build directly upon the work produced during their fall Thesis Prep I and Thesis Prep II courses and take on the role of “principal investigator” pursuing a design research project of their own conception in this Thesis Studio. Students explore a special interest, develop specific skills, pioneer new methods of architectural analysis/synthesis through the careful development of a design research process directly matched to an area of exploration and challenged to ground their work in the larger context of the profession, the culture, and an increasingly global society.

Track Two: Pre-professional plus Two

- ARCH 9500 Studio 10 Thesis - Students build directly upon the work produced during their fall Thesis Prep I and Thesis Prep II courses and take on the role of “principal investigator” pursuing a design research project of their own conception in this Thesis Studio. Students explore a special interest, develop specific skills, pioneer new methods of architectural analysis/synthesis through the careful development of a design research process directly matched to an area of exploration and challenged to ground their work in the larger context of the profession, the culture, and an increasingly global society.

Track Three: Undergraduate plus Three

- ARCH 7350 2D/3D Media Processes - The course introduces and applies fundamental manual drawing techniques and logics essential to the development of spatial and critical thinking skill sets and practice as well as digital two-dimensional and three-dimensional translations. Students learn how to constructively evaluate their own work and work of their peers.
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A.3 Investigative Skills: Ability to gather, assess, record, and comparatively evaluate relevant information and performance in order to support conclusions related to a specific project or assignment.

Track One: Single Institution

- ARCH 1000 Studio 01 - In this studio, students investigate and present their research on fundamental properties of materials, joinery and use, properly cite sources and begin a process of

design research, iterating how the materials and assemblage relate to the bigger design idea. Students test and evaluate design by testing how the project relates to light, air and structural force. Additionally, librarians introduce students to research in the library using architectural journals and books.

- ARCH 9300 Thesis Prep II - This course begins the year-long process of creating an individual thesis research. Thesis Prep II focuses on investigations and projections in architecture and allied fields, drawing from theoretical, cultural, and cross-disciplinary sources. It serves as a springboard for critical thinking, writing, and making in preparation for the spring thesis studio.

Track Two: Pre-professional plus Two

- Arch 8650, Fabrication Methods - With a focus on making as a means of applied research, graduate students work with both manual and digital fabrication tools, techniques and fabrication methodologies. Design and applied research ranges in scale and scope from the making of artifacts to prototyping to one-to-one scale manufacturing.
- ARCH 9300 Thesis Prep II - This course begins the year-long process of creating an individual thesis research. Thesis Prep II focuses on investigations and projections in architecture and allied fields, drawing from theoretical, cultural, and cross-disciplinary sources. It serves as a springboard for critical thinking, writing, and making in preparation for the spring thesis studio.

Track Three: Undergraduate plus Three

- ARCH 7350 2D/3D Media Processes - The course introduces and applies fundamental manual drawing techniques and logics essential to the development of spatial and critical thinking skill sets and practice as well as digital two-dimensional and three-dimensional translations. Students learn how to constructively evaluate their own work and work of their peers.
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A.4 Architectural Design Skills: Ability to effectively use basic formal, organizational and environmental principles and the capacity of each to inform two- and three-dimensional design.

Track One: Single Institution

- ARCH 2000 Studio 03 - In this studio, students develop basic spatial, material, structural, and site concepts in the making of architecture. Students develop increasingly complex programmatic and circulatory solutions while considering site and context as factors in appropriate design responses through plans, sections, site plans, site sections, diagrams and digital perspectives.
- ARCH 9000 Studio 09 Special Topics - Students pursue a faculty proposed research and design agenda in architecture and urban design, explore topics enhanced through experiential research learning (travel, forums, etc.) and develop an awareness of a critical position. They demonstrate critical thinking through advanced design methods and representation.

Track Two: Pre-professional plus Two

- ARCH 8650 Fabrication Methods - With a focus on making as a means of applied research, graduate students work with both manual and digital fabrication tools, techniques and fabrication methodologies. Design and applied research ranges in scale and scope from the making of artifacts to prototyping to one-to-one scale manufacturing.

- ARCH 9000 Studio 09 Special Topics - Students pursue a faculty proposed research and design agenda in architecture and urban design, explore topics enhanced through experiential research learning (travel, forums, etc.) and develop an awareness of a critical position. They demonstrate critical thinking through advanced design methods and representation.

Track Three: Undergraduate plus Three

- ARCH 7000 Graduate Foundation Studio 01 - This studio course explores conceptual design through a series of elemental architectural exercises.
- ARCH 8650 Fabrication Methods - With a focus on making as a means of applied research, graduate students work with both manual and digital fabrication tools, techniques and fabrication methodologies. Design and applied research ranges in scale and scope from the making of artifacts to prototyping to one-to-one scale manufacturing.
- ARCH 9000 Studio 09 Special Topics - Students pursue a faculty proposed research and design agenda in architecture and urban design, explore topics enhanced through experiential research learning (travel, forums, etc.) and develop an awareness of a critical position. They demonstrate critical thinking through advanced design methods and representation.

A.5 Ordering Systems: Ability to apply the fundamentals of both natural and formal ordering systems and the capacity of each to inform two- and three-dimensional design.

Track One: Single Institution

- ARCH 1500 Studio 02 - Problem Two in this foundation studio was based on the use of one of four possible structural ordering systems (round and square columns, parallel and bearing walls) to assist students in forming spatial order within a party wall, retail space. Problem Three used and expanded on these architectural and structural ordering systems to include landscape/natural ordering systems (orchard, vineyard, forest, meadow) as site conditions in which they developed their projects through drawings and models.
- ARCH 2500 Studio 04 - Students develop diagrams that express formal ordering systems such as structure, circulation, geometry, figure ground and natural ordering systems such as orientation, sun and shadow studies, and wind studies.

Track Two: Pre-professional plus Two

- ARCH 8300 Applied Research & Design 01 – This course focuses on understanding research and design methodologies through a series of explorative projects and explorations based on analytical precedents. Students learn how to develop diagrams of built and natural ordering systems.
- ARCH 8700 Applied Research & Design 02 – This course focuses on understanding research and design methodologies through a series of explorative projects and explorations based on analytical precedents. Students learn how to develop diagrams of built and natural ordering systems.

Track Three: Undergraduate plus Three

- ARCH 7500 Graduate Foundation Studio 02 This studio focuses on techniques of visualization and representation (freehand drawing skills and model-making) as they pertain to beginning design. Students continue to develop fundamental design skills through orthographic drawing (plan, section and elevation), perspective drawing, model-making and diagramming. Fundamental digital skills are explored. General concepts of space, form, material and structure are investigated by using techniques in architectural representation and visualization in a series of design problems.
- ARCH 8300 Applied Research & Design 01 – This course focuses on understanding research and design methodologies through a series of explorative projects and explorations based on analytical precedents. Students learn how to develop diagrams of built and natural ordering

systems.

- ARCH 8700 Applied Research & Design 02 – This course focuses on understanding research and design methodologies through a series of explorative projects and explorations based on analytical precedents. Students learn how to develop diagrams of built and natural ordering systems.

A.6 Use of Precedents: Ability to examine and comprehend the fundamental principles present in relevant precedents and to make informed choices about the incorporation of such principles into architecture and urban design projects.

Track One: Single Institution

- ARCH 1500 Studio 02 - In this studio, Problem One focused on the analysis and documentation of fundamental ordering, structural, programmatic and conceptual principles in a residential precedent to better understand the architect's design process, and to serve as a point of departure for the subsequent two problems where precedent lessons were incorporated into the development of design projects by the students.
- ARCH 2000 Studio 03 - Students research, analyze and reconstruct in drawing and model a building precedent. Students analyze buildings that respond to specific site, environmental, and topographic conditions with a goal to understand how these buildings make contact with the ground / engage the ground, how they are oriented with regard to the sun, how they respond to site specifics such as dominant and prevailing winds, and how the buildings adapt to seasonal changes.
- ARCH 2500 Studio 04 - Student analyze a building envelope precedent and write a brief history focused on important factors and decisions regarding the selection and application of the building envelope system and assembly, draw a building envelope assembly to describe the components of the assembly from interior to exterior, evaluate a building envelope and assembly with regard to aesthetics, manipulation of light, transfer of structural loads, moisture transfer, durability and energy and material resources, and construct a physical model of a building envelope.

Track Two: Pre-professional plus Two

- ARCH 8300 Applied Research & Design 01 – This course focuses on understanding research and design methodologies through a series of explorative projects and explorations based on analytical precedents. Students learn how to develop diagrams of built and natural ordering systems.
- ARCH 8700 Applied Research & Design 02 – This course focuses on understanding research and design methodologies through a series of explorative projects and explorations based on analytical precedents. Students learn how to develop diagrams of built and natural ordering systems.

Track Three: Undergraduate plus Three

- ARCH 7000 Graduate Foundation Studio 01 - Students research, analyze and reconstruct a building precedent. Students analyze buildings that respond to specific site, environmental, and topographic conditions with a goal to understand how these buildings make contact with the ground / engage the ground, how they are oriented with regard to the sun, how they respond to site specifics such as dominant and prevailing winds, and how the buildings adapt to seasonal changes.
- ARCH 7500 Graduate Foundation Studio 02 – Student analyze a building envelope precedent and write a brief history focused on important factors and decisions regarding the selection and application of the building envelope system and assembly, draw a building envelope assembly to describe the components of the assembly from interior to exterior, evaluate a building envelope and assembly with regard to aesthetics, manipulation of light, transfer of structural loads, moisture transfer, durability and energy and material resources, and construct a physical model of

a building envelope.

- ARCH 8300 Applied Research & Design 01 – This course focuses on understanding research and design methodologies through a series of explorative projects and explorations based on analytical precedents. Students learn how to develop diagrams of built and natural ordering systems.
- ARCH 8700 Applied Research & Design 02 – This course focuses on understanding research and design methodologies through a series of explorative projects and explorations based on analytical precedents. Students learn how to develop diagrams of built and natural ordering systems.

A.7 History and Global Culture: Understanding of the parallel and divergent histories of architecture and the cultural norms of a variety of indigenous, vernacular, local, and regional settings in terms of their political, economic, social, ecological, and technological factors.

Track One: Single Institution

- ARCH 2100 History/Theory 01 - This lecture course surveys world architecture, urbanism and landscapes from the ancient world through roughly 1600 CE in order to understand global histories of architecture and the cultural norms of various indigenous, vernacular, local, regional and urban settings. Lectures, quizzes and exams address architecture as a form of cultural expression and in relation to artistic, political, religious, scientific, technological, and social developments.
- ARCH 2600 History /Theory 02 - This lecture course surveys world architecture, urbanism and landscapes from 1700 CE to the present day. Lectures, quizzes and exams discuss architecture as a form of cultural expression and in relation to artistic, political, religious, scientific, technological and social developments.
- ARCH 9000 Studio 09 Special Topics - The studio is focused on contemporary design challenges in a regional, national or international locale per the expertise of individual graduate faculty members. The studio begins with a ten-day research trip to a different destination for each studio as part of the ongoing research and design work of the course. The travel experience is integrated into the learning goals of the studio, and projects are typically based in the visited city. Recent destinations have included: Benin, Bali, Istanbul, Lisbon, London, New England, New Orleans, Oslo, Paris, Rome, Seattle, Shanghai, and Venice. Following the travel, a required assignment across all studios pairs students who travel on different continents. During the trips, each student is required to observe the cultural and historical characteristics of a place of gathering at their destination. After returning to Boston, each student draws comparisons and contrasts with the observations and analysis of the other student. Through observation, discussion, analysis, drawing, and writing, students demonstrate an understanding of the parallel and divergent histories of architecture as well as varied cultural norms. Assessments of the social and spatial patterns observed encourage awareness of the many cultural and historic concerns an architect faces throughout the design process, setting the groundwork for a semester assignment influenced by a deeper understanding of cultural diversity and global culture.

Track Two: Pre-professional plus Two

- ARCH 9000 Studio 09 Special Topics - The studio is focused on contemporary design challenges in a regional, national or international locale per the expertise of individual graduate faculty members. The studio begins with a ten-day research trip to a different destination for each studio as part of the ongoing research and design work of the course. The travel experience is integrated into the learning goals of the studio, and projects are typically based in the visited city. Recent destinations have included: Benin, Bali, Istanbul, Lisbon, London, New England, New Orleans, Oslo, Paris, Rome, Seattle, Shanghai, and Venice. Following the travel, a required assignment across all studios pairs students who travel on

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Track Three: Undergraduate plus Three

- ARCH 7250 Graduate History Lecture 01 – This lecture course surveys world architecture, urbanism and landscapes from the ancient world through roughly 1700 CE. Lectures shall discuss architecture as a form of cultural expression and in relation to the artistic, political, religious, scientific, technological, and social developments.
- ARCH 7550 Graduate History Lecture 02 – This seminar builds on core themes and topics introduced in Graduate History Theory 01. This course surveys world architecture, urbanism and landscapes from 1700 CE to the present day. Graduate students concentrate on focused research and themes as designed by the History Theory Faculty. Critical Writing and research at the graduate level is emphasized.
- ARCH 9000 Studio 09 Special Topics - The studio is focused on contemporary design challenges in a regional, national or international locale per the expertise of individual graduate faculty members. The studio begins with a ten-day research trip to a different destination for each studio as part of the ongoing research and design work of the course. The travel experience is integrated into the learning goals of the studio, and projects are typically based in the visited city. Recent destinations have included: Benin, Bali, Istanbul, Lisbon, London, New England, New Orleans, Oslo, Paris, Rome, Seattle, Shanghai, and Venice.
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A.8 Cultural Diversity and Social Equity: Understanding of the diverse needs, values, behavioral norms, physical abilities, and social and spatial patterns that characterize different cultures and individuals and the responsibility of the architect to ensure equity of access to sites, buildings, and structures.

Track One: Single Institution

- ARCH 2600 History /Theory 02 - Investigating world architecture, urbanism and landscapes from the Enlightenment through the beginning of the 21st century, students study how architecture serve as a form of cultural expression and in relation to artistic, political, religious, scientific, technological, and social developments. Writing assignment 2 specifically asks students to consider social equity and the relationship to architecture.
- ARCH 9000 Studio 09 Special Topics - The studio is focused on contemporary design challenges

in a regional, national or international locale per the expertise of individual graduate faculty members. The studio begins with a ten-day research trip to a different destination for each studio as part of the ongoing research and design work of the course. The travel experience is integrated into the learning goals of the studio, and projects are typically based in the visited city. Recent destinations have included: Benin, Bali, Istanbul, Lisbon, London, New England, New Orleans, Oslo, Paris, Rome, Seattle, Shanghai, and Venice. Following the travel, a required assignment across all studios pairs students who travel on different continents. During the trips, each student is required to observe the cultural and historical characteristics of a place of gathering at their destination. After returning to Boston, each student draws comparisons and contrasts with the observations and analysis of the other student. Through observation, discussion, analysis, drawing, and writing, students demonstrate an understanding of the parallel and divergent histories of architecture as well as varied cultural norms. Assessments of the social and spatial patterns observed encourage awareness of the many cultural and historic concerns an architect faces throughout the design process, setting the groundwork for a semester assignment influenced by a deeper understanding of cultural diversity and global culture.

Track Two: Pre-professional plus Two

- ARCH 9000 Studio 09 Special Topics - The studio is focused on contemporary design challenges in a regional, national or international locale per the expertise of individual graduate faculty members. The studio begins with a ten-day research trip to a different destination for each studio as part of the ongoing research and design work of the course. The travel experience is integrated into the learning goals of the studio, and projects are typically based in the visited city. Recent destinations have included: Benin, Bali, Istanbul, Lisbon, London, New England, New Orleans, Oslo, Paris, Rome, Seattle, Shanghai, and Venice. Following the travel, a required assignment across all studios pairs students who travel on different continents. During the trips, each student is required to observe the cultural and historical characteristics of a place of gathering at their destination. After returning to Boston, each student draws comparisons and contrasts with the observations and analysis of the other student. Through observation, discussion, analysis, drawing, and writing, students demonstrate an understanding of the parallel and divergent histories of architecture as well as varied cultural norms. Assessments of the social and spatial patterns observed encourage awareness of the many cultural and historic concerns an architect faces throughout the design process, setting the groundwork for a semester assignment influenced by a deeper understanding of cultural diversity and global culture.

Track Three: Undergraduate plus Three

- ARCH 7550 Graduate History Lecture 02 - This seminar builds on core themes and topics introduced in Graduate History Theory 01. This course surveys world architecture, urbanism and landscapes from 1700 CE to the present day. Graduate students concentrate on focused research and themes as designed by the History Theory Faculty. Critical Writing and research at the graduate level is emphasized.
- ARCH 9000 Studio 09 Special Topics - The studio is focused on contemporary design challenges in a regional, national or international locale per the expertise of individual graduate faculty members. The studio begins with a ten-day research trip to a different destination for each studio as part of the ongoing research and design work of the course. The travel experience is integrated into the learning goals of the studio, and projects are typically based in the visited city. Recent destinations have included: Benin, Bali, Istanbul, Lisbon, London, New England, New Orleans, Oslo, Paris, Rome, Seattle, Shanghai, and Venice. Following the travel, a required assignment across all studios pairs students who travel on

different continents. During the trips, each student is required to observe the cultural and historical characteristics of a place of gathering at their destination. After returning to Boston, each student draws comparisons and contrasts with the observations and analysis of the other student. Through observation, discussion, analysis, drawing, and writing, students demonstrate an understanding of the parallel and divergent histories of architecture as well as varied cultural norms. Assessments of the social and spatial patterns observed encourage awareness of the many cultural and historic concerns an architect faces throughout the design process, setting the groundwork for a semester assignment influenced by a deeper understanding of cultural diversity and global culture.

REALM B: INTEGRATED ARCHITECTURAL SOLUTIONS is concentrated in the middle of the program, in the integrated sequence, with a few criteria reinforced in the final thesis year in the grad program. In these areas of the program, students delve into core conceptual and technical issues of integrated building design – systems, structure, enclosure, sustainability, materials, and many other concerns related to the making of architecture. At the end of this sequence, students have a very strong footing in the skills necessary to develop their career as exemplary architects.

B.1 Pre-Design: Ability to prepare a comprehensive program for an architectural project that includes an assessment of client and user needs; an inventory of spaces and their requirements; an analysis of site conditions (including existing buildings); a review of the relevant building codes and standards, including relevant sustainability requirements, and an assessment of their implications for the project; and a definition of site selection and design assessment criteria.

Track One: Single Institution

- ARCH 3500 Studio 06 -. In this comprehensive studio, the design investigation begins with analysis of site, urban, and building pressures as well as research into the building types and precedents. Final requirements include: site analysis, urban analysis, building type research and program analysis, conceptual models and sketches relating to site analysis and program analysis, and building codes and zoning review. Reinforcement of the overall concept will drive the decision-making process throughout.
- ARCH 4000 Studio 07 Urbanism
ARCH 4025 Studio 07 Emerging Technologies
ARCH 4050 Studio 07 Adaptive Interventions - As part of Phase 1 of Studio 7, students are required to conduct a full analysis of the contextual conditions. This graphic and written documentation and diagrammatic analysis serves as the foundation to their design solution. Students are required to demonstrate through a series of diagrams and written narratives how their site selection or understanding follows a logical argument based on this analysis and how it serves as the basis for conceptual design rules that can guide their decision making throughout the design process. The final comprehensive project and its documentation can include: historical evolution, natural conditions, sociological information, vehicular transportation, pedestrian circulation, land use, block and parcel structure, existing building typology, existing building analysis, surface materials, zoning analysis and building code analysis.

Track Two: Pre-professional plus Two

- ARCH 8500 Advanced Graduate Studio 02 - This design course focuses on the development of highly detailed design proposals, integrating knowledge of building materials and systems within the framework of well-articulated and advanced design intentions. Students gather and synthesize all necessary site, zoning and building code data.

Track Three: Undergraduate plus Three

- ARCH 8500 Advanced Graduate Studio 02 - This design course focuses on the development of highly detailed design proposals, integrating knowledge of building materials and systems within

the framework of well-articulated and advanced design intentions. Students gather and synthesize all necessary site, zoning and building code data.

B.2 Site Design: Ability to respond to site characteristics, including urban context and developmental patterning, historical fabric, soil, topography, ecology, climate, and building orientation, in the development of a project design.

Track One: Single Institution

- ARCH 2200 Technology 01 - Technology I builds on studio-based site design knowledge and focuses on specific technical topics such as site ecology and systems, hydrology and watershed, soil, climate and micro-climate. Skills such as grading with topography, site planning, building orientation, and the reading/analysis of context including urban and historic fabric, development pattern, and extra-urban environments are developed.
- ARCH 2000 Studio 03 - In this studio, students focus on designing in urban contexts by investigating developmental patterns, historical fabric, figure ground studies, elevation studies of a street, topography, site planning, and building orientation.
- ARCH 3500 Studio 06 - This design course focuses on the development of highly detailed design proposals, integrating knowledge of building materials and systems within the framework of well-articulated and advanced design intentions. Students gather and synthesize all necessary site, zoning and building code data.

Track Two: Pre-professional plus Two

- ARCH 8500 Advanced Graduate Studio 02 - This design course focuses on the development of highly detailed design proposals, integrating knowledge of building materials and systems within the framework of well-articulated and advanced design intentions. Students gather and synthesize all necessary site, zoning and building code data.

Track Three: Undergraduate plus Three

- ARCH 7000 Graduate Foundation Studio 01 - This studio course explores conceptual design through a series of elemental architectural exercises. Students analyze and evaluate implications of site and context.
- ARCH 7300 Technology 1 - This lecture and workshop-based course focuses on site design skills and concepts, in urban and non-urban environments. The course also includes principles of building siting/orientation and an introduction to passive environmental building strategies.
- ARCH 8500 Advanced Graduate Studio 02 - This design course focuses on the development of highly detailed design proposals, integrating knowledge of building materials and systems within the framework of well-articulated and advanced design intentions. Students gather and synthesize all necessary site, zoning and building code data.

B.3. Codes and Regulations: Ability to design sites, facilities, and systems that are responsive to relevant codes and regulations, and include the principles of life-safety and accessibility standards.

Track One: Single Institution

- ARCH 2200 Technology 01 - Technology I is the first in a series of courses to build ability to understand and comply with codes and regulations. Tied with B.2 Site Design, the course focuses on interpretation and utilization of regulations/codes pertaining to site such as zoning and development requirements, wetland and clean water act regulation, means of egress and life safety as they relate to building ingress/egress, and accessibility both on sites and in buildings with focus on the American with Disabilities Act Architectural Guidelines (ADAAG) and Massachusetts Architectural Access Board (MAAB) regulations.
- ARCH 3500 Studio 06 - At the start of the studio project, students perform a code and zoning review to determine legal site and building requirements for the town/city/state where the project site is located. These include local zoning requirements, ordinances from the site specific municipality and a building code search and analysis using the International Building Code (IBC),

Massachusetts Amendments to the IBC, the ADA and Massachusetts Accessibility code. They apply the results of their zoning and code work to their site and building designs.

Track Two: Pre-professional plus Two

- ARCH 8500 Advanced Graduate Studio 02 - This design course focuses on the development of highly detailed design proposals, integrating knowledge of building materials and systems within the framework of well-articulated and advanced design intentions. Student designs must indicate compliance with applicable building and accessibility codes.

Track Three: Undergraduate plus Three

- ARCH 7300 Technology 01 - This lecture and workshop-based course focuses on site design skills and concepts, in urban and non-urban environments. The course also includes principles of building siting/orientation and an introduction to passive environmental building strategies.
- ARCH 8500 Advanced Graduate Studio 02 - This design course focuses on the development of highly detailed design proposals, integrating knowledge of building materials and systems within the framework of well-articulated and advanced design intentions. Student designs must indicate compliance with applicable building and accessibility codes.

B.4 Technical Documentation: Ability to make technically clear drawings, prepare outline specifications, and construct models illustrating and identifying the assembly of materials, systems, and components appropriate for a building design.

Track One: Single Institution

- ARCH 2700 Technology 02 - Students in this course will prepare detailed technical documentation, prepare outline specifications, and construct large scale models that illustrate and identify material assemblies, building systems and components.
- ARCH 3200 Technology 03 - Students develop reflected ceiling plans that show ducts, an electrical plan, sprinkler systems, fire protection systems, lighting fixtures, ceiling materials and ceiling height.

Track Two: Pre-professional plus Two

- ARCH 8250 Advanced Technology & Materials - This lecture and workshop-based course focuses on site and architecture design skills and concepts, in urban and non-urban environments. The course also includes principles of building siting/orientation and an introduction to passive environmental building strategies. Emphasis on materials, formal logics and structural relationships at multiple scales will be investigated. Students develop reflected ceiling plans that show ducts, an electrical plan, sprinkler systems, fire protection systems, lighting fixtures, ceiling materials and ceiling height.

Track Three: Undergraduate plus Three

- ARCH 7600 Technology 02 - This lecture and workshop-based course focuses on architectural methods for achieving visual, thermal and acoustical comfort in buildings using climate, form, orientation, materials and structure.
- ARCH 8250 Advanced Technology & Materials - This lecture and workshop-based course focuses on site and architecture design skills and concepts, in urban and non-urban environments. The course also includes principles of building siting/orientation and an introduction to passive environmental building strategies. Emphasis on materials, formal logics and structural relationships at multiple scales will be investigated. Students develop reflected ceiling plans that show ducts, an electrical plan, sprinkler systems, fire protection systems, lighting fixtures, ceiling materials and ceiling height.

B.5 Structural Systems: Ability to demonstrate the basic principles of structural systems and their ability to withstand gravitational, seismic, and lateral forces, as well as the selection and application of the appropriate structural system.

Track One: Single Institution

- ARCH 3400 Structures I - In this course students will develop a basic understanding of the structural behavior of beams and trusses and develop fundamental analysis skills. Students will learn to apply both quantitative and qualitative methods of determining forces in beams, trusses and other structures. Concepts of stress, strain, axial force, moment and shear will be presented in a comprehensive semi-quantitative environment.
- ARCH 3900 Structures 02 - Students analyze more complex systems and design beams and columns in wood, steel and concrete. Topics include analysis of continuous beams and rigid frames, loads on structural systems, grids & pattern layout and funicular structures (cables and arches) presented. They will learn and understand the effect of cross-sectional properties on stresses in beams.
- ARCH 3000 Studio 05 - In this studio, students choose an applicable structural system for their design and use design guide charts to estimate column and beam type, spacing and sizing. They apply those results to their designs demonstrating how the design and structure of the building work together.

Track Two: Pre-professional plus Two

- ARCH 8000 Advanced Graduate Studio 01 – This design course focuses on the development of highly detailed design proposals, integrating knowledge of building materials and systems within the framework of well-articulated and advanced design intentions.
- ARCH 8400 Structures I – Students learn how loads are applied and distributed, and how to analyze beams and trusses. Both the method of joints and the method of sections will be used. Basic principles of strength of materials, structural mechanics and structural analysis are presented.
- ARCH 8800 Structures 02 - Introduction to behavior and analysis of more complex systems and design of beams and columns in wood, steel and concrete. Topics include analysis of continuous beams/rigid frames, loads on structural systems, grids/pattern layout and funicular structures (cables and arches).

Track Three: Undergraduate plus Three

- ARCH 8000 Advanced Graduate Studio 01 – This design course focuses on the development of highly detailed design proposals, integrating knowledge of building materials and systems within the framework of well-articulated and advanced design intentions.
- ARCH 8400 Structures I – Students learn how loads are applied and distributed, and how to analyze beams and trusses. Both the method of joints and the method of sections will be used. Basic principles of strength of materials, structural mechanics and structural analysis are presented.
- ARCH 8800 Structures 02 - Introduction to behavior and analysis of more complex systems and design of beams and columns in wood, steel and concrete. Topics include analysis of continuous beams/rigid frames, loads on structural systems, grids/pattern layout and funicular structures (cables and arches).

B.6 Environmental Systems: Ability to demonstrate the principles of environmental systems' design, how design criteria can vary by geographic region, and the tools used for performance assessment. This demonstration must include active and passive heating and cooling, solar geometry, daylighting, natural ventilation, indoor air quality, solar systems, lighting systems, and acoustics.

Track One: Single Institution

- ARCH 2700 Technology 02 - This course introduces the theory and application of climate, energy use, and comfort as determinants of architectural form. Emphasis is on architectural methods for climate adaptation using non-mechanical means (climate, shape, orientation, material and structure) for ventilating, cooling, heating, and lighting in envelope-load dominated buildings.

- ARCH 3200 Tech 03 - The course deals specifically with acoustics, lighting, thermal optimization, large HVAC systems, water, and waste systems for buildings. This course places emphasis on the integration of spatial, visual, and environmental performance aspects of predominantly medium to large-scale buildings where the environmental systems may be a form-determinant. Innovative environmental solutions will be illustrated throughout the course.
- ARCH 3500 Studio 06 - Students develop their design project in greater detail considering the building's environmental technical issues, (lighting, ventilation, mechanical, and environmental systems) location issues and spatial requirements through drawings showing environmental systems, facades and fenestration.

Track Two: Pre-professional plus Two

- ARCH 8250 Advanced Technology & Materials -This lecture and workshop-based course focuses on site and architecture design skills and concepts, in urban and non-urban environments. The course also includes principles of building siting/orientation and an introduction to passive environmental building strategies. Emphasis on materials, formal logics and structural relationships at multiple scales will be investigated.
- ARCH 8500 Advanced Graduate Studio 02 - Students develop their design project in greater detail considering the building's environmental technical issues, (lighting, ventilation, mechanical, and environmental systems) location issues and spatial requirements through drawings showing environmental systems, facades and fenestration.

Track Three: Undergraduate plus Three

- ARCH 7600 Technology 02 This lecture and workshop-based course focuses on architectural methods for achieving visual, thermal and acoustical comfort in buildings using climate, form, orientation, materials and structure.
- ARCH 8250 Advanced Technology & Materials -This lecture and workshop-based course focuses on site and architecture design skills and concepts, in urban and non-urban environments. The course also includes principles of building siting/orientation and an introduction to passive environmental building strategies. Emphasis on materials, formal logics and structural relationships at multiple scales will be investigated.
- ARCH 8500 Advanced Graduate Studio 02 - Students develop their design project in greater detail considering the building's environmental technical issues, (lighting, ventilation, mechanical, and environmental systems) location issues and spatial requirements through drawings showing environmental systems, facades and fenestration.

B.7 Building Envelope Systems and Assemblies: Understanding of the basic principles involved in the appropriate selection and application of building envelope systems relative to fundamental performance, aesthetics, moisture transfer, durability, and energy and material resources.

Track One: Single Institution

- ARCH 2500 Studio 04 Students in this course will explore through detailed drawings and large-scale models, how to design and assemble building envelope systems through group building envelope precedent studies where students show understanding of envelope assemblies from interior to exterior, relative to interior material, structure, insulation, moisture transfer and cladding.
- ARCH 2700 Technology 02 - Students will work on detailed drawings for façade project, employ the THERM software program to enter in each layer, calculate R-values with thermal bridging and moisture transfer, and discuss embodied energy.
- ARCH 3000 Studio 05 - This studio course introduces fundamental architectonic principles through projects of increasing scale and complexity. Design problems emphasize context, program, and the material language of architecture.

Track Two: Pre-professional plus Two

- ARCH 8000 Advanced Graduate Studio 01 –This design course focuses on the development of highly detailed design proposals, integrating knowledge of building materials and systems within the framework of well-articulated and advanced design intentions.

Track Three: Undergraduate plus Three

- ARCH 7500 Graduate Foundation Studio 02 – Students in this course will explore through detailed drawings and large-scale models, how to design and assemble building envelope systems through group building envelope precedent studies where students show understanding of envelope assemblies from interior to exterior, relative to interior material, structure, insulation, moisture transfer and cladding.
- ARCH 7600 Technology 02 This lecture and workshop-based course focuses on architectural methods for achieving visual, thermal and acoustical comfort in buildings using climate, form, orientation, materials and structure.
- ARCH 8000 Advanced Graduate Studio 01 –This design course focuses on the development of highly detailed design proposals, integrating knowledge of building materials and systems within the framework of well-articulated and advanced design intentions.

B.8 Building Materials and Assemblies: Understanding of the basic principles used in the appropriate selection of interior and exterior construction materials, finishes, products, components, and assemblies based on their inherent performance, including environmental impact and reuse.

Track One: Single Institution

- ARCH 2700 Technology 02 - Student will develop a façade assemblies and investigate interior and exterior construction including floor finishes, roof to ceiling layers, and interior partitions.
- ARCH 3500 Studio 06 - In order to understand basic principles of construction materials and assemblies, students select a discrete area of their project. From there, students are required to create larger-scale drawings and models, showing interior and exterior construction materials, finishes, products, and components based on their inherent performance and the specific demands of the project. This includes environmental impact and reuse.

Track Two: Pre-professional plus Two

- ARCH 8500 Advanced Graduate Studio 02 - This design course focuses on the development of highly detailed design proposals, integrating knowledge of building materials and systems within the framework of well-articulated and advanced design intentions.

Track Three: Undergraduate plus Three

- ARCH 7600 Technology 02 This lecture and workshop-based course focuses on architectural methods for achieving visual, thermal and acoustical comfort in buildings using climate, form, orientation, materials and structure.
- ARCH 8500 Advanced Graduate Studio 02 - This design course focuses on the development of highly detailed design proposals, integrating knowledge of building materials and systems within the framework of well-articulated and advanced design intentions.

B.9 Building Service Systems: Understanding of the basic principles and appropriate application and performance of building service systems, including lighting, mechanical, plumbing, electrical, communication, vertical transportation, security, and fire protection systems.

Track One: Single Institution

- ARCH 3000 Studio 05 - Students research building service systems and apply their results to their studio designs, showing physical and spatial implications for those systems in their drawings and presentations.
- ARCH 3200 Technology 03 - Students create lighting guidelines for an art museum for

daylighting/ electric lighting/ both Type of Luminaire and Lamp Placement of lighting and direction. Students analyze and modify an existing HVAC distribution system and develop a reflected ceiling plan that shows ducts, sprinkler systems, wiring diagram, fire protection systems, lighting fixtures, ceiling materials and ceiling height.

Track Two: Pre-professional plus Two

- ARCH 8000 Advanced Graduate Studio 01 –This design course focuses on the development of highly detailed design proposals, integrating knowledge of building materials and systems within the framework of well-articulated and advanced design intentions.
- ARCH 8250 Advanced Technology & Materials -This lecture and workshop-based course focuses on site and architecture design skills and concepts, in urban and non-urban environments. The course also includes principles of building siting/orientation and an introduction to passive environmental building strategies. Emphasis on materials, formal logics and structural relationships at multiple scales will be investigated.

Track Three: Undergraduate plus Three

- ARCH 8000 Advanced Graduate Studio 01 –This design course focuses on the development of highly detailed design proposals, integrating knowledge of building materials and systems within the framework of well-articulated and advanced design intentions.
- ARCH 8250 Advanced Technology & Materials -This lecture and workshop-based course focuses on site and architecture design skills and concepts, in urban and non-urban environments. The course also includes principles of building siting/orientation and an introduction to passive environmental building strategies. Emphasis on materials, formal logics and structural relationships at multiple scales will be investigated.

B.10 Financial Considerations: Understanding of the fundamentals of building costs, which must include project financing methods and feasibility, construction cost estimating, construction scheduling, operational costs, and life-cycle costs.

Track One: Single Institution

- ARCH 9600 Professional Perspectives: In an effort to *understand the fundamentals of building costs, including project financing methods, construction cost estimating, construction scheduling, operational costs, and life-cycle costs*, students completed Assignment 5: “Project Schedule, Delivery Method, and Project Management” along with follow-up Assignment 7: “Cost Estimates.” This on-going assignment started with student firms responding to an RFP for a schematic design to a small, sustainable lake house (previously given as Assignment 4 earlier in the semester). Deliverables included a basic design (plan, section, perspectives, at minimum), the identification of specific materials used, a completed LEED checklist, a project schedule (in Microsoft Excel or Microsoft Project), a firm staffing list indicating hourly costs, etc., their proposed project delivery method (as defined by AIA), and finally a thorough cost estimate of their design (using RSMean or other discussed take-off method). With their accumulated results, students then analyzed the financials of their design against the original budget as stated in the RFP.

Track Two: Pre-professional plus Two

- ARCH 9600 Professional Perspectives: In an effort to *understand the fundamentals of building costs, including project financing methods, construction cost estimating, construction scheduling, operational costs, and life-cycle costs*, students completed Assignment 5: “Project Schedule, Delivery Method, and Project Management” along with follow-up Assignment 7: “Cost Estimates.” This on-going assignment started with student firms responding to an RFP for a schematic design to a small, sustainable lake house (previously given as Assignment 4 earlier in the semester). Deliverables included a basic design (plan, section, perspectives, at minimum), the identification of specific materials used, a completed LEED checklist, a project schedule (in Microsoft Excel or

Microsoft Project), a firm staffing list indicating hourly costs, etc., their proposed project delivery method (as defined by AIA), and finally a thorough cost estimate of their design (using RSMeans or other discussed take-off method). With their accumulated results, students then analyzed the financials of their design against the original budget as stated in the RFP.

Track Three: Undergraduate plus Three

- ARCH 9600 Professional Perspectives: In an effort to *understand the fundamentals of building costs, including project financing methods, construction cost estimating, construction scheduling, operational costs, and life-cycle costs*, students completed Assignment 5: “Project Schedule, Delivery Method, and Project Management” along with follow-up Assignment 7: “Cost Estimates.” This on-going assignment started with student firms responding to an RFP for a schematic design to a small, sustainable lake house (previously given as Assignment 4 earlier in the semester). Deliverables included a basic design (plan, section, perspectives, at minimum), the identification of specific materials used, a completed LEED checklist, a project schedule (in Microsoft Excel or Microsoft Project), a firm staffing list indicating hourly costs, etc., their proposed project delivery method (as defined by AIA), and finally a thorough cost estimate of their design (using RSMeans or other discussed take-off method). With their accumulated results, students then analyzed the financials of their design against the original budget as stated in the RFP.

REALM C: INTEGRATED ARCHITECTURAL SOLUTIONS

Research and integrative design occurs in both faculty-led and student-led research. Students develop evaluation criteria and synthesize these ideas in an integrated building design project.

C.1 Research: Understanding of the theoretical and applied research methodologies and practices used during the design process.

Track One: Single Institution

- ARCH 3700 spr Concentrations Studies, Urbanism
ARCH 3700 spr Concentration Studies, Emerging Technologies
ARCH 3700 spr Concentration Studies, Adaptive Interventions - This undergraduate seminar course addresses topics pertinent to each concentration, with an emphasis on relevant modes of research within the discipline. This course reviews key histories, theories and principles of the select concentration and explores them through readings, discussion, analysis, writing and then students apply this knowledge gained through project-based design research. Students expand research skills in collecting and organizing information from scholarly sources while exploring representational methods and the production of original research.
- ARCH 3700 fall Concentrations Studies, Urbanism
ARCH 3700 fall Concentration Studies, Emerging Technologies
ARCH 3700 fall Concentration Studies, Adaptive Interventions - This undergraduate seminar course addresses topics pertinent to each concentration, with an emphasis on relevant modes of research within the discipline. This course reviews key histories, theories and principles of the select concentration and explores them through readings, discussion, analysis, writing and then students apply this knowledge gained through project-based design research. Students expand research skills in collecting and organizing information from scholarly sources while exploring representational methods and the production of original research.
- ARCH 9200 Thesis Prep 1 – This course examines the theoretical underpinnings and methodologies pertinent to research in architecture. Students come to understand how

researchers conduct architectural research, with the goal of preparing their own thesis agenda.

Track Two: Pre-professional plus Two

- ARCH 8750 spr Concentrations Studies, Urbanism
ARCH 8750 spr Concentration Studies, Emerging Technologies
ARCH 8750 spr Concentration Studies, Adaptive Interventions – These courses address topics pertinent to the three concentrations, with an emphasis on relevant modes of research within the discipline. Contemporary issues in the field are addressed through readings, discussion, analysis, writing and projects.
- ARCH 9200 Thesis Prep 1 – This course examines the theoretical underpinnings and methodologies pertinent to research in architecture. Students come to understand how researchers conduct architectural research, with the goal of preparing their own thesis agenda.

Track Three: Undergraduate plus Three

- ARCH 8750 spr Concentrations Studies, Urbanism
ARCH 8750 spr Concentration Studies, Emerging Technologies
ARCH 8750 spr Concentration Studies, Adaptive Interventions – These courses address topics pertinent to the three concentrations, with an emphasis on relevant modes of research within the discipline. Contemporary issues in the field are addressed through readings, discussion, analysis, writing and projects.
- ARCH 8750 fall Concentrations Studies, Urbanism
ARCH 8750 fall Concentration Studies, Emerging Technologies
ARCH 8750 fall Concentration Studies, Adaptive Interventions - These courses address topics pertinent to the three concentrations, with an emphasis on relevant modes of research within the discipline. Contemporary issues in the field are addressed through readings, discussion, analysis, writing and projects.
- ARCH 9200 Thesis Prep 1 – This course examines the theoretical underpinnings and methodologies pertinent to research in architecture. Students come to understand how researchers conduct architectural research, with the goal of preparing their own thesis agenda.

C.2 Integrated Evaluations and Decision-Making Design Process: Ability to demonstrate the skills associated with making integrated decisions across multiple systems and variables in the completion of a design project. This demonstration includes problem identification, setting evaluative criteria, analyzing solutions, and predicting the effectiveness of implementation.

Track One: Single Institution

- ARCH 4000 Studio 07 Urbanism
ARCH 4025 Studio 07 Emerging Technologies
ARCH 4050 Studio 07 Adaptive Interventions - After each review, students are required to assess their work in relationship to the design rules they have set up, opportunities, mistakes, etc. and develop specific evaluative criteria appropriate to the level or focus of each review. The evaluation of the work is done and expressed through graphic analysis coupled with a written narrative focusing on the specific spatial/architectural relationships, structural and mechanical system integration, etc. and may include development of concept, relationships to context and precedent, master plan relationships, building design and detail development.
- ARCH 9500 Studio 10 Thesis - Students build directly upon the work produced during their fall Thesis Prep I and Thesis Prep II courses and take on the role of “principal investigator” pursuing a design research project of their own conception in this Thesis Studio. Students explore a special interest, develop specific skills, pioneer new methods of architectural analysis/synthesis

through the careful development of a design research process directly matched to an area of exploration and challenged to ground their work in the larger context of the profession, the culture, and an increasingly global society.

Track Two: Pre-professional plus Two

- ARCH 9500 Studio 10 Thesis - Students build directly upon the work produced during their fall Thesis Prep I and Thesis Prep II courses and take on the role of “principal investigator” pursuing a design research project of their own conception in this Thesis Studio. Students explore a special interest, develop specific skills, pioneer new methods of architectural analysis/synthesis through the careful development of a design research process directly matched to an area of exploration and challenged to ground their work in the larger context of the profession, the culture, and an increasingly global society.

Track Three: Undergraduate plus Three

- ARCH 9500 Studio 10 Thesis - Students build directly upon the work produced during their fall Thesis Prep I and Thesis Prep II courses and take on the role of “principal investigator” pursuing a design research project of their own conception in this Thesis Studio. Students explore a special interest, develop specific skills, pioneer new methods of architectural analysis/synthesis through the careful development of a design research process directly matched to an area of exploration and challenged to ground their work in the larger context of the profession, the culture, and an increasingly global society.

C.3 Integrative Design: Ability to make design decisions within a complex architectural project while demonstrating broad integration and consideration of environmental stewardship, technical documentation, accessibility, site conditions, life safety, environmental systems, structural systems, and building envelope systems and assemblies.

Track One: Single Institution

- ARCH 3000 Studio 05 - In this design studio, students learn how all the pieces of the building work together relative to the design concept, building systems and in relationship to various site forces and the environment. Students learn to make design decisions within a complex architectural project while demonstrating broad integration and consideration of environmental stewardship, technical documentation, accessibility, site conditions, life safety, environmental systems, structural systems, and building envelope systems and assemblies
- ARCH 3500 Studio 06 - This design studio focuses on the development of highly detailed, conceptual design proposals, integrating knowledge of building materials and systems within the framework of well-articulated and advanced design intentions with broad integration and consideration of environmental stewardship, technical documentation, accessibility, site conditions, life safety, environmental systems, structural systems, and building envelope systems and assemblies.

Track Two: Pre-professional plus Two

- ARCH 8500 Advanced Graduate Studio 02 - This design course focuses on the development of highly detailed design proposals, integrating knowledge of building materials and systems within the framework of well-articulated and advanced design intentions.

Track Three: Undergraduate plus Three

- ARCH 8500 Advanced Graduate Studio 02 - This design course focuses on the development of highly detailed design proposals, integrating knowledge of building materials and systems within the framework of well-articulated and advanced design intentions.

REALM D: PROFESSIONAL PRACTICE

Following the co-op scheduled during the summer, and in the final year of study, students gain a deeper

understanding of the fundamental topics that bear upon and inform professional practice in architecture.

D.1 Stakeholder Roles in Architecture: Understanding of the relationships among key stakeholders in the design process—client, contractor, architect, user groups, local community—and the architect’s role to reconcile stakeholder needs.

Track One: Single Institution

- ARCH 4000 Studio 07 Urbanism
ARCH 4025 Studio 07 Emerging Technologies
ARCH 4050 Studio 07 Adaptive Interventions - As part of Phase 1 of Studio 7, documentation of client, contractor, architect, user groups and local community groups with vested interest in the project are considered as central to the parameters of the project, its limitations, and its opportunities. The understanding of the stakeholders interest and desires for the design is derived from surveys, workshops, and informational discussions as well as by different types of interactions with specific and ad hoc user groups that are relevant to the development of the program, contextual issues, etc. of the project. At the final review, students demonstrate graphically, through their presentation narrative, and through their documentation that key stakeholders’ input has been considered and addressed in the design and that their input has been prioritized according to appropriate hierarchies
- ARCH 9600 Professional Perspectives: In an effort to *understand the relationships among key stakeholders in the design process - client, contractor, architect, user groups, local community - and the architect's role to reconcile stakeholder needs*, students completed Assignments 1, 3, and 6. In Assignment 1: “Mistry Architects,” students read, discussed, and completed their own written analyses on a case study where an architect was pressed to make a difficult decision regarding the multiple opposing voices (and ethics) of the numerous stakeholders on a particular project. Students were asked to describe, assess, and make recommendations on this specific case study as well as to reflect on a similar situation they may have experienced in practice or that they could anticipate with their thesis. In Assignment 3: “Business Plan,” student teams generated a firm together, including name, branding, firm size, area(s) of focus, and other components of a business model. Each team developed an expression of their brand, as well as basic financials (ProForma Income statement) and firm structure to explain how they operate and why. The written material was accompanied by a formal group (firm) presentation that focused on understanding the specific relationships and roles in an architectural practice. In Assignment 6: “Project Management,” students were asked to read a case study that they discussed in class and followed with a written analysis regarding the strengths and weaknesses of a Project Manager and her abilities to communicate to varied project stakeholders. Ethics, questions of how to be a team player, and ways to better one’s communication skills (both verbally and in written form) were addressed in all assignments.

Track Two: Pre-professional plus Two

- ARCH 9600 Professional Perspectives: In an effort to *understand the relationships among key stakeholders in the design process - client, contractor, architect, user groups, local community - and the architect's role to reconcile stakeholder needs*, students completed Assignments 1, 3, and 6. In Assignment 1: “Mistry Architects,” students read, discussed, and completed their own written analyses on a case study where an architect was pressed to make a difficult decision regarding the multiple opposing voices (and ethics) of the numerous stakeholders on a particular project. Students were asked to describe, assess, and make recommendations on this specific case study as well as to reflect on a similar situation they may have experienced in practice or that they could anticipate with their thesis. In Assignment 3: “Business Plan,” student teams generated a firm together, including name, branding, firm size, area(s) of focus, and other components of a business model. Each team developed an expression of their brand, as well as basic financials (ProForma Income statement) and firm structure to explain how they operate and

why. The written material was accompanied by a formal group (firm) presentation that focused on understanding the specific relationships and roles in an architectural practice. In Assignment 6: "Project Management," students were asked to read a case study that they discussed in class and followed with a written analysis regarding the strengths and weaknesses of a Project Manager and her abilities to communicate to varied project stakeholders. Ethics, questions of how to be a team player, and ways to better one's communication skills (both verbally and in written form) were addressed in all assignments.

Track Three: Undergraduate plus Three

- ARCH 9600 Professional Perspectives: In an effort to *understand the relationships among key stakeholders in the design process - client, contractor, architect, user groups, local community - and the architect's role to reconcile stakeholder needs*, students completed Assignments 1, 3, and 6. In Assignment 1: "Mistry Architects," students read, discussed, and completed their own written analyses on a case study where an architect was pressed to make a difficult decision regarding the multiple opposing voices (and ethics) of the numerous stakeholders on a particular project. Students were asked to describe, assess, and make recommendations on this specific case study as well as to reflect on a similar situation they may have experienced in practice or that they could anticipate with their thesis. In Assignment 3: "Business Plan," student teams generated a firm together, including name, branding, firm size, area(s) of focus, and other components of a business model. Each team developed an expression of their brand, as well as basic financials (ProForma Income statement) and firm structure to explain how they operate and why. The written material was accompanied by a formal group (firm) presentation that focused on understanding the specific relationships and roles in an architectural practice. In Assignment 6: "Project Management," students were asked to read a case study that they discussed in class and followed with a written analysis regarding the strengths and weaknesses of a Project Manager and her abilities to communicate to varied project stakeholders. Ethics, questions of how to be a team player, and ways to better one's communication skills (both verbally and in written form) were addressed in all assignments.

D.2 Project Management: Understanding of the methods for selecting consultants and assembling teams; identifying work plans, project schedules, and time requirements; and recommending project delivery methods.

Track One: Single Institution

- ARCH 9600 Professional Perspectives: In an effort to *understand the methods for selecting consultants and assembling teams, identifying work plans, project schedules and time requirements, and recommending project delivery methods*, students completed Assignment 5: "Project Schedule, Delivery Method, and Project Management." By responding to a hypothetical RFP for a schematic design to a small, sustainable lake house (previously given as Assignment 4 earlier in the semester), student firms assembled their team, chose anticipated consultants, generated a project schedule to meet the specified timeline as described in the RFP (identifying the design phases, time for bidding, permitting, construction, close-out, and all associated meetings with the client and consultants), and provided a convincing statement for what their firm considered to be the most appropriate project delivery method for the job.

Track Two: Pre-professional plus Two

- ARCH 9600 Professional Perspectives: In an effort to *understand the methods for selecting consultants and assembling teams, identifying work plans, project schedules and time requirements, and recommending project delivery methods*, students completed Assignment 5: "Project Schedule, Delivery Method, and Project Management." By responding to a hypothetical RFP for a schematic design to a small, sustainable lake house (previously given as Assignment 4 earlier in the semester), student firms assembled their team, chose anticipated consultants, generated a project schedule to meet the specified timeline as described in the RFP (identifying

the design phases, time for bidding, permitting, construction, close-out, and all associated meetings with the client and consultants), and provided a convincing statement for what their firm considered to be the most appropriate project delivery method for the job.

Track Three: Undergraduate plus Three

- ARCH 9600 Professional Perspectives: In an effort to *understand the methods for selecting consultants and assembling teams, identifying work plans, project schedules and time requirements, and recommending project delivery methods*, students completed Assignment 5: "Project Schedule, Delivery Method, and Project Management." By responding to a hypothetical RFP for a schematic design to a small, sustainable lake house (previously given as Assignment 4 earlier in the semester), student firms assembled their team, chose anticipated consultants, generated a project schedule to meet the specified timeline as described in the RFP (identifying the design phases, time for bidding, permitting, construction, close-out, and all associated meetings with the client and consultants), and provided a convincing statement for what their firm considered to be the most appropriate project delivery method for the job.

D.3 Business Practices: Understanding of the basic principles of a firm's business practices, including financial management and business planning, marketing, organization, and entrepreneurship.

Track One: Single Institution

- ARCH 9600 Professional Perspectives: In an effort to *understand the basic principles of a firm's business practices, including financial management and business planning, marketing, organization and entrepreneurship*, student teams completed Assignment 3: "Business Plan," in which they generated a firm together, including their name, branding, firm size, area(s) of focus, and other components of a business model. Each team developed an expression of their brand, as well as basic financials (ProForma Income statement) and a firm structure to explain how they operate and why. The written material was accompanied by a formal group (firm) presentation that focused on understanding the specific relationships and roles in an architectural practice. A thorough package of designed firm material - from the production of thoughtful, quality marketing material, a firm income statement, and a formal group presentation with slides – completed the understanding of what is involved in a business practice.

Track Two: Pre-professional plus Two

- ARCH 9600 Professional Perspectives: In an effort to *understand the basic principles of a firm's business practices, including financial management and business planning, marketing, organization and entrepreneurship*, student teams completed Assignment 3: "Business Plan," in which they generated a firm together, including their name, branding, firm size, area(s) of focus, and other components of a business model. Each team developed an expression of their brand, as well as basic financials (ProForma Income statement) and a firm structure to explain how they operate and why. The written material was accompanied by a formal group (firm) presentation that focused on understanding the specific relationships and roles in an architectural practice. A thorough package of designed firm material - from the production of thoughtful, quality marketing material, a firm income statement, and a formal group presentation with slides – completed the understanding of what is involved in a business practice.

Track Three: Undergraduate plus Three

- ARCH 9600 Professional Perspectives: In an effort to *understand the basic principles of a firm's business practices, including financial management and business planning, marketing, organization and entrepreneurship*, student teams completed Assignment 3: "Business Plan," in which they generated a firm together, including their name, branding, firm size, area(s) of focus, and other components of a business model. Each team developed an expression of their brand, as well as basic financials (ProForma Income statement) and a firm structure to explain how they operate and why. The written material was accompanied by a formal group (firm) presentation that focused on understanding the specific relationships and roles in an architectural practice. A

thorough package of designed firm material - from the production of thoughtful, quality marketing material, a firm income statement, and a formal group presentation with slides – completed the understanding of what is involved in a business practice.

D.4 Legal Responsibilities: Understanding of the architect's responsibility to the public and the client as determined by regulations and legal considerations involving the practice of architecture and professional service contracts.

Track One: Single Institution

- **ARCH 9600 Professional Perspectives:** In an effort to *understand the architect's responsibility to the public and the client as determined by regulations and legal considerations involving the practice of architecture and professional service contracts*, students worked individually or in small groups to complete Assignment 2: "Ethics, Professional Conduct, and Legal Responsibilities" which involved a series of case studies including among others, "The Ethics of Building Placement," "Design Excellence vs. the Client's Best Interest," "Unchecked Drawings for Construction," "Conflicts of Interest," "Scope Changes," "Processing an Unacceptable Substitution Request," and "Certification of Nonconforming Work." For each scenario, students presented to the larger group and generated a written document based on assigned points of view. Students had to cite *specific tenets* of the AIA Code of Ethics and Professional Conduct, the NCARB Rules of Conduct, and the Laws, Rules and/or Statutes related to the practice of architecture and their particular case study.

Track Two: Pre-professional plus Two

- **ARCH 9600 Professional Perspectives:** In an effort to *understand the architect's responsibility to the public and the client as determined by regulations and legal considerations involving the practice of architecture and professional service contracts*, students worked individually or in small groups to complete Assignment 2: "Ethics, Professional Conduct, and Legal Responsibilities" which involved a series of case studies including among others, "The Ethics of Building Placement," "Design Excellence vs. the Client's Best Interest," "Unchecked Drawings for Construction," "Conflicts of Interest," "Scope Changes," "Processing an Unacceptable Substitution Request," and "Certification of Nonconforming Work." For each scenario, students presented to the larger group and generated a written document based on assigned points of view. Students had to cite *specific tenets* of the AIA Code of Ethics and Professional Conduct, the NCARB Rules of Conduct, and the Laws, Rules and/or Statutes related to the practice of architecture and their particular case study.

Track Three: Undergraduate plus Three

- **ARCH 9600 Professional Perspectives:** In an effort to *understand the architect's responsibility to the public and the client as determined by regulations and legal considerations involving the practice of architecture and professional service contracts*, students worked individually or in small groups to complete Assignment 2: "Ethics, Professional Conduct, and Legal Responsibilities" which involved a series of case studies including among others, "The Ethics of Building Placement," "Design Excellence vs. the Client's Best Interest," "Unchecked Drawings for Construction," "Conflicts of Interest," "Scope Changes," "Processing an Unacceptable Substitution Request," and "Certification of Nonconforming Work." For each scenario, students presented to the larger group and generated a written document based on assigned points of view. Students had to cite *specific tenets* of the AIA Code of Ethics and Professional Conduct, the NCARB Rules of Conduct, and the Laws, Rules and/or Statutes related to the practice of architecture and their particular case study.

D.5 Professional Conduct: Understanding of the ethical issues involved in the exercise of professional judgment in architectural design and practice and understanding the role of the NCARB Rules of Conduct and the AIA Code of Ethics in defining professional conduct.

Track One: Single Institution

- ARCH 9600 Professional Perspectives: In an effort to *understand the ethical issues involved in the exercise of professional judgment in architectural design and practice and understanding the role of the NCARB Rules of Conduct and the AIA Code of Ethics in defining professional conduct*, students completed Assignments 1 and 2. In Assignment 1: "Mistry Architects," students read, discussed, and completed their own written analyses on a case study where the architect was pressed to make a difficult decision regarding the multiple opposing voices (and ethics) of the numerous stakeholders on a particular project. Students were asked to describe, assess, and make recommendations on this specific case study as well as to reflect on a similar situation they may have experienced in practice or that they could anticipate with their thesis projects. In Assignment 2: "Ethics, Professional Conduct, and Legal Responsibilities," students analyzed a series of case studies including among others, "The Ethics of Building Placement," "Design Excellence vs. the Client's Best Interest," "Unchecked Drawings for Construction," "Conflicts of Interest," "Scope Changes," "Processing an Unacceptable Substitution Request," and "Certification of Nonconforming Work." For each scenario, students presented to the group and generated a written document based on assigned points of view. Students had to cite *specific tenets* of the AIA Code of Ethics and Professional Conduct, the NCARB Rules of Conduct, and the Laws, Rules and/or Statutes related to the practice of architecture and their particular case study.

Track Two: Pre-professional plus Two

- ARCH 9600 Professional Perspectives: In an effort to *understand the ethical issues involved in the exercise of professional judgment in architectural design and practice and understanding the role of the NCARB Rules of Conduct and the AIA Code of Ethics in defining professional conduct*, students completed Assignments 1 and 2. In Assignment 1: "Mistry Architects," students read, discussed, and completed their own written analyses on a case study where the architect was pressed to make a difficult decision regarding the multiple opposing voices (and ethics) of the numerous stakeholders on a particular project. Students were asked to describe, assess, and make recommendations on this specific case study as well as to reflect on a similar situation they may have experienced in practice or that they could anticipate with their thesis projects. In Assignment 2: "Ethics, Professional Conduct, and Legal Responsibilities," students analyzed a series of case studies including among others, "The Ethics of Building Placement," "Design Excellence vs. the Client's Best Interest," "Unchecked Drawings for Construction," "Conflicts of Interest," "Scope Changes," "Processing an Unacceptable Substitution Request," and "Certification of Nonconforming Work." For each scenario, students presented to the group and generated a written document based on assigned points of view. Students had to cite *specific tenets* of the AIA Code of Ethics and Professional Conduct, the NCARB Rules of Conduct, and the Laws, Rules and/or Statutes related to the practice of architecture and their particular case study.

Track Three: Undergraduate plus Three

- ARCH 9600 Professional Perspectives: In an effort to *understand the ethical issues involved in the exercise of professional judgment in architectural design and practice and understanding the role of the NCARB Rules of Conduct and the AIA Code of Ethics in defining professional conduct*, students completed Assignments 1 and 2. In Assignment 1: "Mistry Architects," students read, discussed, and completed their own written analyses on a case study where the architect was pressed to make a difficult decision regarding the multiple opposing voices (and ethics) of the numerous stakeholders on a particular project. Students were asked to describe, assess, and make recommendations on this specific case study as well as to reflect on a similar situation they may have experienced in practice or that they could anticipate with their thesis projects. In Assignment 2: "Ethics, Professional Conduct, and Legal Responsibilities," students analyzed a series of case studies including among others, "The Ethics of Building Placement," "Design Excellence vs. the Client's Best Interest," "Unchecked Drawings for Construction," "Conflicts of

Interest,” “Scope Changes,” “Processing an Unacceptable Substitution Request,” and “Certification of Nonconforming Work.” For each scenario, students presented to the group and generated a written document based on assigned points of view. Students had to cite *specific tenets* of the AIA Code of Ethics and Professional Conduct, the NCARB Rules of Conduct, and the Laws, Rules and/or Statutes related to the practice of architecture and their particular case study.

II.2.1 Institutional Accreditation

Letter from NEASC available here: [NEASC Response to 5th Year Interim Report](#)

II.2.2 Professional Degrees & Curriculum

Wentworth offers three tracks to the degree title, Master of Architecture (M. Arch.).

Track one (four + one):

This track includes four years of undergraduate study and for students who qualify, a final year at the graduate level for an M.Arch. degree. It also requires two semesters of co-op. (This track is designated a Single Institution M. Arch.) Graduate students in all three tracks have the option to travel in ARCH 9000 Studio 09: Special Topics.

List of Semester Credit Hours

Undergraduate

First year:

Fall semester

ARCH 1000	Studio 01	6
ENGL 1100	English 1	4
MATH 1000	College Mathematics 1	<u>4</u>
		14

Spring semester

ARCH 1500	Studio 02	6
ENGL 2200	English 2	4
MATH 1500	PreCalculus	<u>4</u>
		14

Second year:

Fall semester

ARCH 2000	Studio 03	6
ARCH 2100	History/Theory 01	4
ARCH 2200	Technology 01	4
ARCH 2222	AXP Arch Experience	0
ARCH 2225	Pro Practice Prep	0
ELECTIVE	Humanities/Social Science	<u>4</u>
		18

Spring semester		
CO-OP 3500	Co-op Semester I	0
Summer semester		
ARCH 2500	Studio 04	6
ARCH 2600	History/Theory 02	4
ARCH 2700	Technology 02	4
PHYS 1000	Physics 1	<u>4</u>
		18
Third year:		
Fall semester		
ARCH 3000	Studio 05	6
ARCH 3200	Technology 03	4
ARCH 3400	Structures I	3
ELECTIVE	Humanities/Social Science	<u>4</u>
		17
Spring semester		
ARCH 3500	Studio 06	6
ARCH 3700 spr	Concentrations Studies 01	4
ARCH 3900	Structures 02	3
ELECTIVE	Humanities/Social Science	<u>4</u>
		17
Summer semester		
CO-OP 4500	Co-op Semester II	0
Fourth year		
Fall semester		
ARCH 40xx	Studio 07 (Concentration studio)	6
ARCH 3700 fall	Concentrations Studies 02	4
ELECTIVE	General elective	5
ELECTIVE	Humanities/Social Science	<u>4</u>
		19
Spring semester		
ARCH 5500	Studio 08 (Options studio)	6
ELECTIVE	Architecture elective	4
ELECTIVE	Architecture elective	4

	ELECTIVE	Humanities/Social Science	<u>4</u>
			18
Total Undergraduate Credits			135
Graduate			
Fifth year			
Fall semester			
	ARCH 9000	Studio 09: Special Topics	6
	ARCH 9200	Thesis Prep 1	4
	ARCH 9300	Thesis Prep II	4
	ELECTIVE	Architecture elective	<u>4</u>
			18
Spring semester			
	ARCH 9500	Studio 10: Thesis	6
	ARCH 9600	Professional Perspectives	4
	ARCH 9700	Advanced Topics	4
	ELECTIVE	Architecture elective	<u>4</u>
			18
Total Graduate Credits			<u>36</u>
TOTAL for accredited program			171

Table 1. Four + one track

General Studies	Required Professional Studies	Optional Studies
45 credits	110 credits	16 credits of architecture electives 14-20 credits of concentration studies (within Required Professional Studies)

Available Concentrations:

Urbanism – This concentration focuses on the influence of the arts and humanities, ecology and landscape, economics and politics, and society on design at the urban scale. It challenges students to explore the representation of complex social, cultural and ecological systems as a form of research and offers students the skills and insights necessary to collaborate across disciplinary boundaries and to provide leadership in reshaping our cities.

Emerging Technologies – This concentration explores the material nature of architecture, the craft of building, and the role of emerging technologies as they inform the design process. It

emphasizes the broad architectural and cultural implications of technology, and advances an ethos of research through making.

Adaptive Interventions – This concentration investigates architecture as a discipline with a primary focus is on interventions into contingent existing conditions. Adaptive re-use, regenerative urbanism, sustainability, critical regionalism and related strategies are addressed at scales ranging from the individual building to the urban environment.

Available Minors:

- Architecture
- Aerospace Engineering
- Applied Mathematics
- Bioinformatics
- Biology
- Business Management
- Chemistry
- Civil Engineering
- Computer Networking
- Computer Science
- Construction Management
- Electrical Engineering
- Industrial Design
- Manufacturing
- Media, Culture and Communications Studies
- Physics

Off-campus program:

Undergraduate students have the option to spend one semester of their fourth year at Wentworth facilities in Berlin, Germany. Courses offered in Berlin duplicate the courses taught during the chosen semester at Wentworth in Boston. Fees charged for this option include airfare, living arrangements and faculty-led travel in Europe. Classes are held in spaces arranged by the director of the program, Rolf Backmann, and students stay in apartments leased to Wentworth. Director Backmann is also responsible for hiring Berlin faculty. The facilities are shared with the Interior Design Department in the College of Architecture, Design and Construction Management. (see Branch Campus Questionnaire in Supplemental Materials)

Track two (preprofessional + two):

This track includes the requirement of a four-year preprofessional degree in architecture or in an architecture-related subject at a regionally-accredited institution and two years of graduate coursework at Wentworth. Co-op is supported and optional in the summer. Graduate students in all three tracks have the option to travel in ARCH 9000 Studio 09: Special Topics.

List of Semester Credit Hours

Undergraduate

120 (minimum)

Graduate

First year:

Fall semester

ARCH 8000	Advanced Graduate Studio 01	6
ARCH 8250	Advanced Technology and Materials	4
ARCH 8300	Applied Research and Design 01	4
ARCH 8400	Structures I	3
or		
ARCH 8750 fall	Concentration Studies	4
or		
ELECTIVE	Architecture Elective	<u>4</u>
		17-18

Spring semester

ARCH 8500	Advanced Graduate Studio 02	6
ARCH 8650	Fabrications Methods	4
ARCH 8700	Applied Research and Design 02	4
ARCH 8800	Structures 02	3
or		
ARCH 8750 spr	Concentration Studies	4
or		
ELECTIVE	Architecture Elective	<u>4</u>
		17-18

Second year

Fall semester

ARCH 9000	Studio 09: Special topics	6
ARCH 9200	Thesis Prep 1	4
ARCH 9300	Thesis Prep II	4
ELECTIVE	Architecture elective	<u>4</u>
		18

Spring semester

ARCH 9500	Studio 10: Thesis	6
ARCH 9600	Professional Perspectives	4
ARCH 9700	Advanced Topics	4
ELECTIVE	Architecture elective	<u>4</u>
		18

Total Graduate Credits	<u>70-72</u>
TOTAL for accredited program	190-192

Table 2. Preprofessional + two track

General Studies	Required Professional Studies	Optional Studies
As required by Undergraduate institution	54-56 credits	8 credits of architecture electives 4 credits of concentration studies (within Required Professional Studies)

Available Concentrations:

Urbanism – This concentration focuses on the influence of the arts and humanities, ecology and landscape, economics and politics, and society on design at the urban scale. It challenges students to explore the representation of complex social, cultural and ecological systems as a form of research and offers students the skills and insights necessary to collaborate across disciplinary boundaries and to provide leadership in reshaping our cities.

Emerging Technologies – This concentration explores the material nature of architecture, the craft of building, and the role of emerging technologies as they inform the design process. It emphasizes the broad architectural and cultural implications of technology, and advances an ethos of research through making.

Adaptive Interventions – This concentration investigates architecture as a discipline with a primary focus is on interventions into contingent existing conditions. Adaptive re-use, regenerative urbanism, sustainability, critical regionalism and related strategies are addressed at scales ranging from the individual building to the urban environment.

Track three (non-preprofessional + three):

This track includes the requirement of a four-year undergraduate degree in any subject at a regionally-accredited institution and three years of graduate coursework at Wentworth. Co-op is optional. Graduate students in all three tracks have the option to travel in ARCH 9000 Studio 09: Special Topics.

List of Semester Credit Hours

Undergraduate

120 (minimum)

Graduate

First year:

Fall semester

ARCH 7000	Graduate Foundation Studio 01	6
ARCH 7250	Graduate History Lecture	4
ARCH 7300	Technology 01	4
ARCH 7350	2D/3D Media Processes	<u>4</u>
		18

Spring semester		
ARCH 7500	Graduate Foundation Studio 02	6
ARCH 7550	History/Theory Seminar	4
ARCH 7600	Technology 02	4
ARCH 8750 spr	Concentration Studies	4
Or		
ELECTIVE	Architecture Elective	<u>4</u>
		18
Second year:		
Fall semester		
ARCH 8000	Advanced Graduate Studio 01	6
ARCH 8250	Advanced Technology and Materials	4
ARCH 8300	Applied Research and Design 01	4
ARCH 8400	Structures I	3
or		
ARCH 8750 fall	Concentration Studies 01	4
or		
ELECTIVE	Architecture Elective	<u>4</u>
		17-18
Spring semester		
ARCH 8500	Advanced Graduate Studio 02	6
ARCH 8650	Fabrications Methods	4
ARCH 8700	Applied Research and Design 02	4
ARCH 8800	Structures 02	3
or		
ELECTIVE	Architecture Elective	<u>4</u>
		17-18
Third year		
Fall semester		
ARCH 9000	Studio 09: Special topics	6
ARCH 9200	Thesis Prep 1	4
ARCH 9300	Thesis Prep II	4
ELECTIVE	Architecture elective	<u>4</u>
		18
Spring semester		
ARCH 9500	Studio 10: Thesis	6
ARCH 9600	Professional Perspectives	4
ARCH 9700	Advanced Topics	4

	ELECTIVE	Architecture elective	<u>4</u>
			18
	Total Graduate Credits		<u>106-108</u>
	TOTAL for accredited program		226-228

Table 2. Non-Preprofessional + three track

General Studies	Required Professional Studies	Optional Studies
As required by	94 credits	16 possible credits of architecture electives
Undergraduate Institution		8 possible credits of concentration studies (within Required Professional Studies)

Available Concentrations:

Urbanism – This concentration focuses on the influence of the arts and humanities, ecology and landscape, economics and politics, and society on design at the urban scale. It challenges students to explore the representation of complex social, cultural and ecological systems as a form of research and offers students the skills and insights necessary to collaborate across disciplinary boundaries and to provide leadership in reshaping our cities.

Emerging Technologies – This concentration explores the material nature of architecture, the craft of building, and the role of emerging technologies as they inform the design process. It emphasizes the broad architectural and cultural implications of technology, and advances an ethos of research through making.

Adaptive Interventions – This concentration investigates architecture as a discipline with a primary focus is on interventions into contingent existing conditions. Adaptive re-use, regenerative urbanism, sustainability, critical regionalism and related strategies are addressed at scales ranging from the individual building to the urban environment.

Other degree programs in the College of Architecture, Design and Construction Management:

- Bachelor of Science in Architecture
- Bachelor of Science in Construction Management
- Bachelor of Science in Industrial Design
- Bachelor of Science in Interior Design

Other graduate degree programs in CPCE:

- Master of Engineering in Civil Engineering
- Master of Science in Applied Computer Science
- Master of Science in Construction Management
- Master of Science in Facility Management
- Master of Science in Technology Management

II.3 Evaluation of Preparatory Education

A. Four + One Track:

Application Requirements

Bachelor of Science in Architecture students at Wentworth who wish to enroll in the one-year Master of Architecture program must do so in their senior year; acceptance is based on a portfolio evaluation by department faculty, departmental GPA (architecture courses), overall GPA, a statement of objectives, and references.

Undergraduate students graduating with a minimum departmental GPA of 3.2 (non-elective ARCH courses from first through third years only) will automatically be accepted into the Master of Architecture program for the following year. These students only need to submit an application form and transcript(s). Automatic acceptance applies *only* to applicants currently enrolled in Wentworth's Bachelor of Science in Architecture program and may not be deferred.

Specific requirements are listed below. All materials must be submitted *electronically* to the Admissions Department and postmarked no later than February 15 of the year of enrollment.

Follow this link to [Apply to the Masters in Architecture Program](#).

Internal Candidates – Without Automatic Acceptance

Internal candidates are applicants currently enrolled in Wentworth's B.S. in Architecture degree program or who have graduated from this program within one year of the application deadline.

- **Statement of Objectives.** Answer each of the three following questions listed below:
 1. If you were given complete freedom to investigate an architectural question, what would it be and how would you start? (300 words)
 2. Describe an object or environment that you have made, repaired, built or created. (300 words)
 3. Name a place (real or imagined) where architecture matters, and describe it. (300 words)The statement must be submitted as an electronic file with the application.
- **Resume or curriculum vitae (CV)**
- **Reference Sheet.** Include the names and contact information for two people who may be contacted as references. Recommendation letters are not required and should not be submitted. Reference sheets should be submitted as a separate electronic file with the application and include reference name, title, address, email and phone number.
- **Transcript(s).** All applicants must submit a transcript from Wentworth. Unofficial transcripts are acceptable and may be downloaded from LeopardWeb. Unofficial transcripts should be submitted electronically with the application.
- **Application Fee.** A non-refundable \$50 fee is required.
- **Design Portfolio.** Portfolios should contain work that demonstrates your proficiency in architecture and reflects the full range of your creative, research and technical skills. The portfolio should be submitted as an electronic pdf file no larger than 20MB. [Portfolio Recommendations](#) are outlined here.

Internal Candidates – With Automatic Acceptance

Internal candidates who have achieved a cumulative departmental GPA of at least 3.20 at the end of their junior year qualify for Automatic Acceptance into the program. Students receive confirmation of their status in the fall of their fourth year from the Department of Architecture.

- Students who have earned Automatic Acceptance must submit all the materials listed above, with the exception of a Design Portfolio.

Two-year Track:

Candidates who have earned a four-year pre-professional Bachelor of Science in Architecture degree at another institution – or who have graduated from Wentworth's B.S. in Architecture program more than one year prior to submission – must complete the external candidate

application process for the two-year program. Wentworth graduates may still be considered for admission to the one-year program based on the department's assessment of their status.

To apply to the two-year program, candidates must complete the online application at [Apply to the Masters in Architecture Program](#), and submit the following materials:

- **Statement of Objectives.** Answer each of the three following questions listed below:
 1. If you were given complete freedom to investigate an architectural question, what would it be and how would you start? (300 words)
 2. Describe an object or environment that you have made, repaired, built or created. (300 words)
 3. Name a place (real or imagined) where architecture matters, and describe it. (300 words)The statement must be submitted as an electronic file with the application.
 - **Resume or curriculum vitae (CV)**
 - **Recommendation Letters.** With your application, you should submit the names and titles for two people who are providing you with letters of recommendation.
 - **Official Transcript(s).** All external applicants must submit an official transcript from all institutions (including Wentworth, if applicable) attended after high school graduation. The transcript(s) must be in a sealed envelope from the registrar's office; loose or opened transcripts will not be accepted. Transcripts from non-English based programs should be accompanied by official English translations.
 - **GRE.** Applicants must complete the Graduate Record Examination (GRE) and submit official scores.
 - **Application Fee.** A non-refundable \$50 fee is required.
 - **Design Portfolio.** Portfolios should contain work that demonstrates your proficiency in architecture and reflects the full range of your creative, research and technical skills. The portfolio should be submitted as an electronic pdf file no larger than 20MB. [Portfolio Recommendations](#) are outlined here.
 - **Proof of English Proficiency (for non-native English speakers).** Please review Wentworth's [English proficiency requirements](#) on the website. International applicants will also be required to submit proof of financial support.
 - . International applicants will also be required to submit proof of financial support.
- All materials should be submitted electronically; recommendation letters may be submitted either electronically or by mail to the Admissions Office.

Three-year Track:

Candidates who have earned a four-year undergraduate degree in a discipline other than architecture are eligible to apply. The MArch program is structured as a three-year sequence of study for external candidates without previous degrees in architecture.

To apply to the three-year program, candidates must complete the online application at [Apply to the Masters in Architecture Program](#), and submit the following materials:

- **Statement of Objectives.** Answer each of the three following questions listed below:
 1. If you were given complete freedom to investigate an architectural question, what would it be and how would you start? (300 words)
 2. Describe an object or environment that you have made, repaired, built or created. (300 words)
 3. Name a place (real or imagined) where architecture matters, and describe it. (300 words)The statement must be submitted as an electronic file with the application.
- **Resume or curriculum vitae (CV)**
- **Recommendation Letters.** With your application, you should submit the names and titles for two people who are providing you with letters of recommendation.
- **Official Transcript(s).** All external applicants must submit an official transcript from all institutions (including Wentworth, if applicable) attended after high school graduation. The transcript(s) must

be in a sealed envelope from the registrar's office; loose or opened transcripts will not be accepted. Transcripts from non-English based programs should be accompanied by official English translations.

- **GRE.** Applicants must complete the Graduate Record Examination (GRE) and submit official scores.
- **Application Fee.** A non-refundable \$50 fee is required.
- **Design Portfolio.** Portfolios should contain work that demonstrates your proficiency in architecture and reflects the full range of your creative, research and technical skills. The portfolio should be submitted as an electronic pdf file no larger than 20MB. [Portfolio Recommendations](#) are outlined here.
- **Proof of English Proficiency (for non-native English speakers).** Please review Wentworth's [English proficiency requirements](#) on the website. International applicants will also be required to submit proof of financial support.
All materials should be submitted electronically; recommendation letters may be submitted either electronically or by mail to the Admissions Office.

For students admitted to the two- and three-year tracks preprofessional education is evaluated against the Student Performance Criteria as listed in the [2014 NAAB Conditions for Accreditation](#). Student work is evaluated by review of transcripts and course descriptions from regionally-accredited institutions, by portfolios, and, for institutions outside the US, course and degree authentication by World Education Services (WES).

B. Four + One Track:

The curriculum for students in the Single Institution program has been organized to meet the NAAB Criteria across the total 5 years of the program. The curriculum is reviewed regularly to ensure there are no gaps in the coverage of all SPC. All SPC are shown on the [NAAB Matrix M.Arch 1-yr](#) for this program.

Two-Year Track:

All SPC are met as shown on the NAAB Matrix for this two-year program. See [NAAB Matrix M.Arch 2-yr](#). If a student is awarded advanced standing for a particular course, covering an SPC, that decision is based on course descriptions, the accreditation status of the previous school, and review of the applicant's portfolio.

Three-year Track:

All SPC are met as shown on the NAAB Matrix for this three-year program. See [NAAB Matrix MArch 3-yr](#). If a student is awarded advanced standing for a particular course, covering an SPC, that decision is based on course descriptions, the accreditation status of the previous school, and review of the applicant's portfolio.

C. Four + One Track:

(See II.3.A for articulation of the admission process for students holding the Wentworth Bachelor of Science in Architecture, four-year degree program.)

Two-Year Track:

All advanced standing credits are awarded in writing, prior to registration for the enrolling semester. Each student has a tracking sheet which is reviewed by an advisor with the student before the student is enrolled.

Three-Year Track:

All advanced standing credits are awarded in writing, prior to registration for the enrolling semester. Each student has a tracking sheet which is reviewed by an advisor with the student before the student is enrolled.

II.4 Public Information

The Department currently holds a full 6-year term of accreditation (the maximum possible under the 2009 *NAAB Conditions for Accreditation*) for its Master of Architecture degree program from the National Architectural Accrediting Board (NAAB).

List of links:

II.4.1 Statement on NAAB-Accredited Degrees

[Wentworth Architecture Accreditation](#)

II.4.2 Access to NAAB Conditions and Procedures

[*2014 NAAB Conditions for Accreditation*](#)

[*2009 NAAB Conditions for Accreditation*](#)

[2015 NAAB Procedures for Accreditation](#)

II.4.3 Access to Career Development Information

[ACSA](#)

[Study Architecture website](#)

[AIA](#)

[AIAS](#)

[NAAB](#)

[NCARB](#)

[Emerging Professional's Companion](#)

[Careers + Co-ops](#)

II.4.4 Public Access to APRs and VTRs

[2014 Wentworth Interim Report](#)

NAAB Annual Reports:

[NAAB 2016 ARS](#)

[NAAB 2015 ARS](#)

[NAAB 2014 ARS](#)

[NAAB 2013 ARS](#)

[NAAB 2012 ARS](#)

[NAAB 2011 ARS](#)

[2012 NAAB Decision Letter](#)

[2011 Wentworth Architecture Program Report \(APR\)](#)

[2012 NAAB Visiting Team Report](#)

II.4.5 ARE Pass Rates

[Wentworth ARE Pass Rates](#)

[View the NCARB Architecture Registration Exam \(ARE\) Pass Rates by School.](#)

II.4.6 Admissions and Advising

- [Undergraduate Admissions](#)
- [Graduate Admissions](#)
- [Preparatory / Pre-Professional Education Evaluation Form](#)
- [Bridges Mentoring Program](#)
- [Louis Stokes Alliance for Minority Participation](#)
- [RAMP: Summer Bridge Program](#)
- [Diversity Advocates](#)
- [Student Experience Diversity Committee](#)

II.4.7 Student Financial Information

- [Student Service Center](#)
- [Student Financial Information](#)
- [Estimate for books, general supplies, and specialized materials](#)

III.1.1 Annual Statistical Reports

[Data Certification Letter 2017](#)

III.1.2 Interim Program Reports

To be provided by the NAAB

Section 4: Supplemental materials

- Resumes of faculty teaching in the accredited program: [Faculty Resumes](#)
- Faculty credentials matrices: [FT Faculty Matrix](#) and [Adjunct Faculty Matrix](#)
- Plans or images of physical resources assigned to the program:
[Annex North Floor Plans](#)
Photographs of [Blount Auditorium](#), [Casella Gallery](#), [Annex Central Classroom](#)
[Study Abroad Berlin](#)

- Descriptions of all courses offered within the curriculum of the NAAB-accredited degree program: [Course Descriptions](#)
- Studio Culture Policy: Wentworth Department of Architecture [Studio Culture Policy](#)
- Studio Guidelines: Wentworth Department of Architecture [Architecture Studio Guidelines](#)
- [Self-Assessment Policies and Objectives](#)
- Policies on academic integrity for students (e.g., cheating and plagiarism): Wentworth 2016–2017 Academic Catalog: [Academic Honesty Policy](#)
- Information resources policies including collection development: Douglas D. Schumann Library & Learning Commons [Borrow & Request](#)
- The institution’s policies and procedures relative to EEO/AA for faculty, staff, and students: Wentworth [Human Resource Policies](#)
- The institution’s policy regarding human resource development opportunities: Wentworth [Faculty Handbook](#)
- The policies, procedures, and criteria for faculty appointment and promotion: Wentworth [Faculty Handbook](#) and [Union Contract](#)
- Response to the Offsite Program Questionnaire: [Branch Campuses Questionnaire](#) and link to a .pdf explaining the program: [Overview of Architecture Study Abroad Program](#)
- The previous VTR: [2012 NAAB Visiting Team Report](#)
- Focused Evaluation materials (2015) – Not applicable
- Copy of institutional accreditation letter: [NEASC Response to 5th Year Interim Report](#)
- Letter from institutional research regarding ARS data: [Data Certification Letter 2017](#)