NEW YORK CITY COLLEGE OF TECHNOLOGY
The City University of New York
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OFFICE OF THE PRESIDENT
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February 5, 2016

Andrea S. Rutledge, CAE, Hon. AIA
Executive Director,
National Architectural Accrediting Board
1101 Connecticut Ave, NW Suite 410
Washington, DC 20036

Dear Ms. Rutledge:

I write as President of New York City College of Technology, CUNY, to confirm the institution's commitment to supporting the establishment of a Bachelor of Architecture degree to be offered by the College's Department of Architectural Technology.

This initiative is founded upon intensive planning by the Department's faculty working in collaboration with leading industry partners who serve as members of the Department's advisory board. The development of a Bachelor of Architecture program was also supported in the Report of the Architectural Technology Department's external evaluator, Wayne Drummond, Dean Emeritus of the University of Nebraska College of Architecture. In support of this initiative Dean Drummond highlighted the strengths and unique qualities that our graduates would bring to the profession.

The Associate and B.Tech degrees currently offered by the Architectural Technology Department empower our students with sophisticated technical skills in the areas of BIM, Digital Fabrication and Building Energy Modeling. The Department is proposing to offer a transformative five-year B.Arch. curriculum which will prepare students for 21st century leadership roles in the urban arena. Students would benefit from the existing foundation and network of interdisciplinary collaboration, research funding, and industry engagement.

Overall, New York City College of Technology offers both two-year and four-year programs in more than twenty technical areas to a diverse student population which is 32% Hispanic, 31% Black, and 19% Asian/Pacific Islander. Since the introduction of the Bachelors of Architectural Technology degree in 2003, total student enrollment nearly doubled to approximately 700 students. More recently noted is an increase in the number of students applying to graduate school to both further specialized interests and move towards licensure. The College is recognized by NSF as a Model Replication Institution and is the recipient of several NSF grants, including a CCLI grant for the creation of an interdisciplinary inquiry-based STEM course specifically designed for AEC students *(The Brooklyn Waterfront 2050)* in partnership with the Earth Institute of Columbia University, and a five-year I^3 *grant-The City Tech I^3 Incubator: Interdisciplinary Partnerships for Laboratory Integration.* The I^3 *Incubator* weaves together all the College's NSF projects to create synergies for laboratory practice, shared goals of diversity, outreach, industry integration, and faculty development.

Our collaborators include prominent leaders from the AEC industry and education: Transsolar Climate Engineering, Grimshaw Architects, Arup Engineers, Buro Happold, Thornton Thomasetti, University of Calgary, and Carnegie Mellon University. Representatives from these highly regarded firms continue to actively participate in the development of new curriculum and serve as a resource for symposia and workshops.

In support of this significant initiative the Department has further developed state-of-the-practice computer labs and tools for simulation, associative modeling, and building analysis computation, as well as additive/subtractive fabrication and powerful 3-D laser scanning. Faculty expertise in these areas is being supported and recognized, and new hires reflect continued investment.

In essence, the Bachelor of Architecture degree will allow us to further develop and retain our best students while fusing a technology-intensive curriculum with the rigors of professional practice in the complex urban arena of New York City. As the goals of the new five-year degree are realized, our students - many of whom are underrepresented in the AEC fields - will significantly benefit from the opportunity to attain the leadership qualifications that an accredited degree program fosters.

The College's Accreditation Committee plans to submit their report on Candidacy Eligibility prior the 2016 fall semester. We expect that will formally engage the accreditation process.

Please know that I greatly appreciate your guidance and consideration. Should any additional information prove helpful feel free to contact me directly.

Very truly yours,

Russell K. Hotzler
President

cc: Dean Kevin Hom AIA, School of Technology & Design

New York City College of Technology
City University of New York
Department of Architectural Technology

Plan for Achieving Initial Accreditation

Bachelor of Architecture 160 credits

Year of the Previous Visit: None
Current Term of Accreditation: None

Submitted to: The National Architectural Accrediting Board
Date:

SUBMISSION DOCUMENT

12 October 2016

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PART ONE

PART I INSTITUTIONAL SUPPORT AND COMMITMENT TO CONTINUOUS IMPROVEMENT

Section 1 Identity and Self-Assessment

I.1.1 History and Mission

New York City College of Technology (City Tech) is one of the largest public colleges of technology in New York State. With a Fall 2015 enrollment of 17,424 students, the highest among the City University of New York's (CUNY) senior colleges, it stands as a national model for technological education.

Since its founding in 1946 as the New York State Institute for Applied Arts and Sciences, City Tech has been a pioneer in technology-based education. Established in response to the emerging needs of business and industry, it provided highly trained technicians and other specialists to fuel a post-war economy marked by new inventions, industrial processes and technologies. In 1953, oversight was transferred from the State to the City of New York and the institute was renamed New York City Community College. Eleven years later it became a part of the City University of New York system.

A second root of City Tech can be traced to 1881 when the Technical Schools of the Metropolitan Museum of Art were renamed The New York Trade School. That institution – which became the Voorhees Technical Institute many decades later – was a model for the development of technical/vocational schools worldwide. In 1971, Voorhees was incorporated into City Tech and continued to offer two-year associate degrees.

In 2002 the college was renamed New York City College of Technology to keep pace with its role as a senior college offering four-year programs and in the same year the Department of Architectural Technology was authorized to offer a four-year Bachelor of Technology (B. Tech.) degree. In New York State, a B. Tech. degree requires a minimum of 30 credits in liberal arts courses. In its distinctive commitment to providing a strong general education in the liberal arts and sciences along with specialized technical training City Tech requires 42 credits in liberal arts out of a total of 120 credits. Encouraging lifelong learning, this curriculum helps students prepare for challenging, high-level professional opportunities, not merely for technical jobs.

The annual growth rate of the college has experienced a significant upward trend in the past decade. There are 17,424 students currently matriculated across the college in the various bachelors and associates degree programs and that number continues to grow each year. Under construction is a 350,000 square-foot academic building equipped with state-of-the-art science and engineering laboratories, classrooms fully outfitted with the latest technologies, a 1000-seat auditorium and a fully-serviced athletic facility. At the same time, the college continues to update its existing facilities. Voorhees Hall, the home of the Architectural Technology Department, recently received a new exterior curtain wall enclosure, a refurbished lobby and cafeteria, and the elevators are currently being replaced. Labs and studios in the department are continually being upgraded with new equipment and software.

New York City College of Technology is fully accredited by the Board of Regents of the University of the State of New York and the Middle States Commission on Higher Education, (3624 Market Street, Philadelphia, PA 19104, 267-284-5000). Individual programs are also accredited by their relevant institutions.

The mission statement of the college reads:

> *New York City College of Technology is the designated college of technology of The City University of New York, currently offering baccalaureate and associate degrees, as well as specialized certificates. New York City College of Technology serves the city and the state by providing technically proficient graduates in the technologies of the arts, business, communications, health and engineering; human services and law-related professions; technical and occupational education; and liberal arts and sciences. The College provides access to higher education for New York City's diverse population and assures high quality in its programs by a commitment to outcomes assessment. The College also serves the region by developing partnerships with government agencies, business, industry and the professions and by providing technical and other services.*
>
> *Education at New York City College of Technology provides students with both a command of skills necessary in their respective career areas, and the educational foundation for lifelong learning. All degree programs are built upon a liberal arts and science core curriculum designed to foster intellectual curiosity, an appreciation for the aesthetic dimension of life and work and a respect for cultural diversity. Students obtain practical experience in their chosen fields in a variety of settings. The College further encourages student growth and development through academic and student support services and a wide array of student activities.*

The entire mission statement of the college is available in the President's message on the college's website: http://www.citytech.cuny.edu/about-us/mission.aspx, and in the latest college catalog. The college catalog is available online at: http://www.citytech.cuny.edu/academics/academic-catalog.aspx.

Departmental History and Mission

> *The Architectural Technology Department provides an innovative, progressive, nurturing environment that prepares students for advanced education and employment in architecture and related fields. The Department aspires to produce graduates who are recognized leaders in architecture and related fields. The faculty will develop education in design, building technology, history, theory, and the environment through creative and scholarly investigation, leading edge computational tools, interdepartmental collaboration, and community based learning.*

In its role as the senior college of technology of The City University of New York (CUNY), our department offers the most accessible architectural education in the metro area, with competitive tuition and a large enrollment capacity. NYCCT's Department of Architectural Technology is known for its workplace oriented curriculum, leading edge technologies and student-focused environment, providing opportunities for students to engage in real-world community service projects. Our location in Downtown Brooklyn allows the department to use New York City and its environs as a laboratory and an extension of the classroom.

Our twenty full-time faculty are practicing, licensed professionals, and our part-time instructional staff of over sixty adjuncts hold prominent positions in city agencies, at prestigious public or not-for-profit institutions and with the region's leading private architecture, design and engineering firms. Our faculty are being increasingly recognized regionally and nationally for their important contributions to the profession. The department has been awarded notable grants that have provided significant resources and research opportunities to our faculty and students. Our faculty and students participate in City Tech programs such as Emerging Scholars, which provides advanced study and an opportunity to conduct research alongside professors as an extension of a student's educational experience. Faculty and students have presented research at professional conferences garnering awards from organizations such as ACSA (Association of Collegiate Schools of Architecture), SARA (Society of American Registered Architects) and the AIA (American Institute of Architects) Brooklyn Chapter.

New York City College of Technology's Department of Architectural Technology is committed to building strong partnerships with industry professionals. Our curriculum and electives are focused on key areas of industry need, as identified by our faculty and Advisory Board, including: Building Information Modeling (BIM); Environmentally Sustainable ("green") Technologies, Advanced Computation and Fabrication; Preservation, Restoration and Existing Building Tools & Technologies; Zoning Regulations, Building Code and Approvals; Acoustics and Lighting; and Advanced Construction Detailing. These courses are led by expert faculty with specializations in these fields. Our proximity and ease of access to all of New York City, coupled with nearly fifty years of faculty-cultivated relationships with many employers, practicing former graduates and other related career professionals allows us to identify potential jobs and other unique learning opportunities for our students.

Students are encouraged to create, participate in, and be leaders of the many student initiated clubs, activities and travels around the world. Students are active members of, and have won design competition awards from, the AIA Student Chapter and the Society of American Registered Architects (SARA). Recently, our students participated in the 2015 Solar Decathlon, an international competition sponsored by the U.S. Department of Energy, finishing 5th in engineering and 7th in architecture.

The Department of Architectural Technology, at its founding as part of the Voorhees Technical Institute, provided a traditional two-year program in architectural drafting. At that time an associate degree was adequate for entry level employment in an architectural office. In the building industry, the graduates of the department were prized for their work related skills, namely their ability to develop construction documents.

A four-year Bachelor of Technology in Architectural Technology degree was established in 2003. The two-year AAS program remained in place and was updated. The Bachelor of Technology and the Associate of Applied Science degrees in Architectural Technology are the only programs of their kind in the City University of New York system. The offering of the four-year degree proved popular and our student population expanded significantly. Currently our enrollment varies year to year in the range of 700-800 students total.

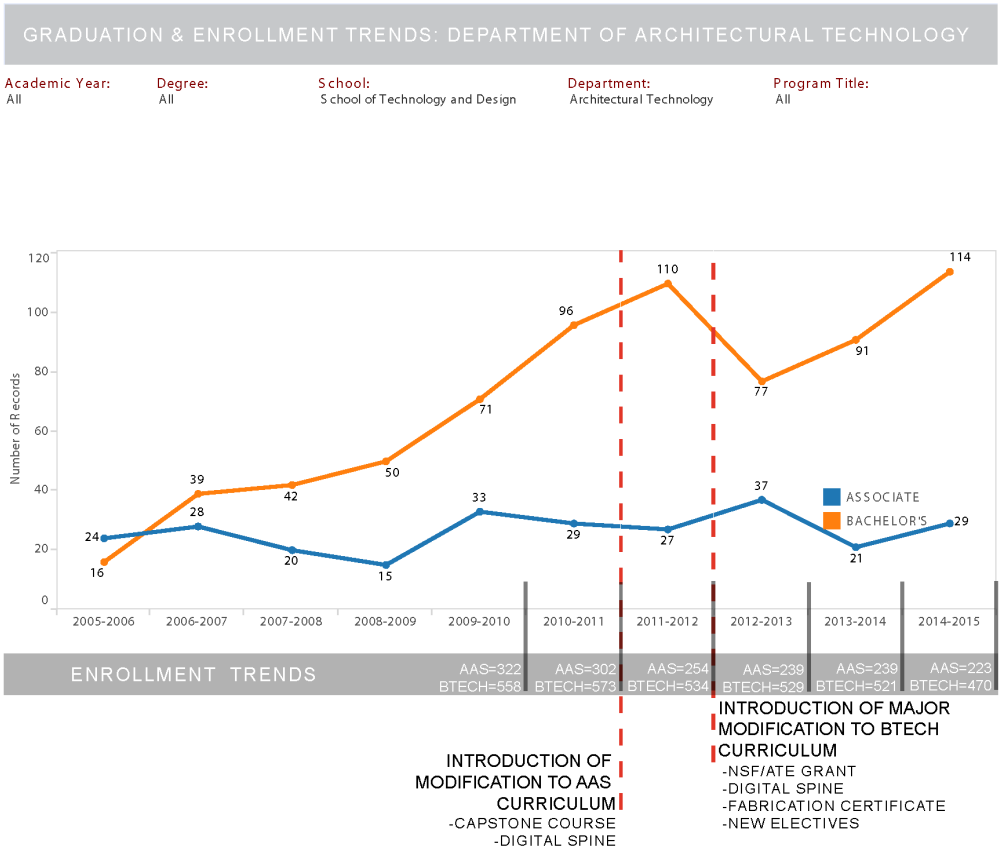
From 2009-2013 the department conducted a comprehensive review of the curriculum of both degrees, re-designing them to balance the demands of the workforce, technological focus and NAAB requirements for an accredited degree. The updated degrees are more well rounded, integrating the college's general education focus as well as placing a greater emphasis on an integrated design process with a strong foundation in technological knowledge and cutting-edge tools training and skills development.

To support this new curriculum the department hired eight new full-time faculty, bringing the total to 20, including some with significant specializations to enhance our offerings of cutting-edge courses. These courses cover topics of sustainability, high-performance building envelopes, digital fabrication and advanced design. At the same time we added to our resources a significant range of equipment including 3d printers, laser cutters, a CNC mill, robotic arms as well as thermal imaging cameras, 3d laser scanners and other tools for examining existing buildings and their environmental performance. This equipment allows us to further enhance the knowledge and skills of our students through their integration into numerous courses.

The department is a growing center for academic and scholarly activity in cutting-edge design and technologies that impact the field. A symposium series titled "Intersections" has brought academics and practitioners to the college to explore potential applications of techniques, software and tools that increase building performance and enhance project delivery. The faculty and students with more regularity are exploring important issues of development in Brooklyn and bringing these to the public through exhibitions and symposia. Professional development workshops sponsored by our department provide both students and local professionals opportunities to develop new skills in software and tools to enhance their practice.

From 2013-2015 we compiled a ten-year self study of our department, a process which allowed us to reflect on our development and identify next steps for our programs. As part of this ten-year review we invited an external reviewer, Wayne Drummond, FAIA Dean Emeritus and Professor University of Nebraska-Lincoln, to visit our program and provide recommendations for future development. Dean Drummond visited in the spring of 2015 and noted that the quality of student work, strength of the faculty and success of our building technology sequence had a strong correlation to that of B. Arch. programs around the country. His clear recommendation to our department is to formally pursue NAAB accreditation.

Our enrollment and graduation data illustrates that an increasing number of our students are seeking our four-year B. Tech. degree, demonstrating the demand for higher levels of education and preparation for the current workforce. In 2010, 31% of our graduates earned the AAS, whereas in 2015 only 20% of our graduates earned the same degree. In this time frame, the number students earning the B. Tech. degree increased 160%, rising from 71 graduates in 2010 to 114 graduates in 2015. We are compiling data on where our graduates go after earning their degrees, but current findings indicate a significant increase of interest and applications to graduate school where students can earn an accredited professional degree. In addition, we are seeing an increasing number of students placed in more prominent design firms including SHoP, SOM, KPF, Perkins Eastman, and BuroHappold as well as city institutions such as the NYC Department of Design and Construction, NYC School Construction Authority and the NYC Department of Buildings demonstrating their viability in the marketplace.



These trends support our position and Dean Drummond's recommendation of taking the next step to evolve our program further by offering an accredited five-year B. Arch. degree, thus providing a significant under-served student population with a pathway to an accredited professional degree at a highly competitive tuition rate that builds on our department's technologically enriched pedagogy.

In fulfilling our mission to provide a high-quality architectural education to an underserved population, the college administers fees collected to offset the costs of equipment and materials used by the students in the department. In demonstrating its commitment to institute an accredited professional degree program in architecture, the college intends to seek additional financial support for the fifth-year of the BARCH students.

Course of Action for Achieving Initial Accreditation in Not More than Six Years

a. Plan for Securing Resources

While our department has operated with 700-800 students with our current facilities and full-time and part-time faculty, we will require additional resources to implement the B. Arch. program in addition to our current programs. In **Section 2, I.2.2** below, we detail our space needs and our plan to add studio and computer lab space and to work with our administration to consolidate faculty offices and gain formal access to a wood shop.

b. Securing Institutional Approvals

At the date of this writing, we have strong institutional support for our B. Arch. application made possible by the President, Provost, and Dean's offices. The college has a clear process for institutional approvals for new degree programs, new courses, and modifications to existing curriculum. Submissions are made to College Council, which assigns submissions to the Curriculum Committee for review. Once the submission is reviewed and adjustments made, it is put up for a vote in the committee to approve to send to the full council, which then reviews, debates, and votes for final approval at the subsequent council meeting. The schedule for approval requires us to submit our initial changes in September 2016 in order to achieve approval by December 2016, allowing us to launch new courses by Fall 2017. We detail below in **Part Two** the timeline and process for institutional approvals required for the B. Arch. degree program.

c. Plan for Recruiting and Retaining Students

Our current enrollment fluctuates between 700-800 students. We anticipate our initial cohorts being drawn from students who are already attracted to our department based on our existing degrees, reputation, and tuition costs. Many of our current students articulate their ambition to earn a professional accredited degree, demonstrating the demand already in place in our department. Judging by our highest performing students in our current programs, there will typically be a pool of approximately 35-45 students that will likely meet or exceed our anticipated portfolio, GPA, and interview requirements for acceptance into the B. Arch. program. Therefore, we can launch the degree program without a major recruitment effort. That said, as our program draws close to achieving accreditation, we will tap our existing outreach and coordination with local high schools to communicate the significance of the opportunity to earn a professional degree in our program, targeting the highest quality students that may not have previously considered applying to City Tech for their architectural education.

Our plan for retention centers on three key activities: advisement, academic support, and mentoring. The faculty dedicates significant time each semester reviewing students' progress through the curriculum and advising them on courses and workloads to stay on track for their degree program. This is especially important for those students that take courses out of sequence due to work schedules or other factors. Each year we review our advisement strategies and discuss opportunities for improvement.

Our department has made great strides in academic support for our students. First, we have introduced Computer Lab Technicians (CLT)s into our Design and Building Technology Courses as a means to support the software and hardware tools being used in those courses. These CLTs work closely with the faculty to integrate and coordinate skills development into the course. This effort is a core part of our "Digital Spine." In addition, CLT staff offer workshops during the week and on weekends that provide students with more intensive assistance in applying these tools to their course work. Finally, CLT staff have office hours for one-on-one tutoring, a support mechanism that is popular with the students.

The third key activity that helps us retain our students is mentorship. Both during office hours, during class, and other times outside of class, faculty take time to learn about our students' ambitions and their challenges, their hopes for a career. Our maximum class size of 24 students, with many

courses with 18 student or less, allows for a better opportunity to get to know our students as individuals. We recognize that many of our students have not had a personal mentorship experience, and that this activity can play an important role in building our students' confidence and perseverance in pursuit of their goals.

Other activities also aid in our retention efforts, including departmental town hall meetings and new student orientation within our department, and counseling, tutoring, and special support services provided by the college (SEEK, ASAP).

d. Plan for Recruiting Full-Time and Part-Time Faculty

We have a strong full-time and part-time faculty that serves our 700-800 students in our current programs (20 full-time faculty and 60-70 part-time faculty.) We anticipate a small initial increase of students as we implement the B. Arch. degree program. We will be able to operate the B. Arch. degree initially with our current faculty numbers, but as we grow the program we will evaluate our need for additional full-time and part-time faculty to support the increased numbers.

e. Proposed Date for Enrolling the First Cohort

We are planning to enroll the first "eligible" cohort in Fall 2017. All students will start in a uniform curriculum for the first two years, allowing us to maintain the open enrollment culture for our AAS and B. Tech. degrees. This curriculum will follow the SPC requirements for the B. Arch. degree. Students from this cohort can apply for the B. Arch. degree program in the second semester of their second year. Students accepted into the B. Arch. program start their third year in the Fall of 2019. For more context for this sequence, see the timeline in **Part Two** below.

f. Projected Date for Awarding Degrees

The first cohort to be awarded the B. Arch. degree is projected to graduate in spring 2022. For more context for these projected dates, see the timeline in **Part Two** which follows.

g. Plan for Developing and Implementing New Courses/Curriculum

The department is in progress on the development of the new curriculum for the B. Arch. degree program. A curriculum map has been drafted, outlining each sequence of the curriculum (Studio, History/Theory, Structures, Building Technology, and Professional Practice) and the distribution of credit hours for each course. Course outlines are in development (see **Part Three: Supplemental Materials, 3.1** below) showing the specific NAAB SPC's each course will address. Our full-time faculty will review our initial curriculum changes in Sept. 2016. For detailed information regarding the flow of the curriculum and the history and logic behind its development, see **II.2.2** below. For more detail on the assignment of SPC's to specific courses, see **II.1.1** which follows.

With confirmation of Initial Candidacy, we will implement the first two years of this new curriculum in the Fall of 2017. We will finalize and implement the remaining years 3-5 starting in the Fall of 2019. For more context for the implementation of the curriculum, see the timeline in **Part Two** below.

h. Plan for External Support

The Department of Architectural Technology is eager to continue the project of gaining support outside of the college and the university. For more detail on our current efforts and future plans, see **Section 2, I.2.3** below.

i. Plan or Provisions in the Event the Program Does Not Achieve Initial Candidacy:

Our department believes that we are ready for B. Arch. candidacy now and that this is the logical course of action for our students and our program. If, however, we do not achieve initial candidacy

this academic year, we will review any feedback we receive from NAAB, analyze the shortcomings of our plan, and begin a revision of our plan for submission the following academic year. As our curriculum changes will already be submitted and likely approved, we will review the date for implementation of the new courses of the AAS curriculum in relation to the delay in NAAB candidacy. We will continue our development of the second curriculum submission, as well as the coordination with our college on additional resources needed when students start to enroll in the B. Arch. program.

j. Plan or Provision in the Event the Program Does Not Achieve Initial Accreditation

The B. Arch. degree program will be our third degree program. Students who graduate with the hope of the B. Arch. degree, but are not granted the degree if the department fails to achieve initial accreditation, will have a few options. First, this cohort of students can apply for any course substitutions necessary to be granted the B. Tech. degree through our department. This degree does allow the students to pursue licensure in New York State. To provide an additional course of action for our students, we are currently coordinating articulation agreements with other regional universities with M. Arch. degree programs. Many of our B. Tech. degree graduates are already pursuing M. Arch. degrees around the country based on their strong portfolios and experience in our B. Tech. program. If we have these articulation agreements in place prior to the first cohort's graduation date, as we anticipate, this cohort could continue their education towards a professional accredited degree at one of these institutions.

I.1.2 Learning Culture

There are a number of factors that have a significant impact on the learning culture at City Tech. First is the nature of the institution as an open enrollment commuter college. Open enrollment allows students of varying degrees of college preparedness to enroll in our program. Many students have long distance commutes, traveling over an hour on public transportation each way. The commute is time consuming, and the distance impacts the ease of access to campus resources such as the library and labs. The college does not currently provide 24/7 access, limiting the time students can work on campus each day. Many students have jobs while they are attending college, requiring them to be particularly efficient with their time. In addition, the combination of high enrollment and limited classroom and studio space requires high utilization rates of learning spaces, leaving students limited access to studio space to work in while on campus outside of their class time. All of these factors combine to make the learning culture in our department distinct from the architectural education culture typically found at residential colleges. These factors impact our studio culture, the sequence of the curriculum and the camaraderie of the cohorts.

Our studio courses currently meet 2 days a week, with 3-4 credit hours allocated for the first five studio courses, and 5 credits for the final three studio courses. The limitations on class time due to low credit hour allocations put more pressure on the students to execute significant amounts of their project work outside of class time, where they often toil without guidance or feedback either from faculty or peers. While some students are able to manage their time out of class well, many struggle to make a consistent effort outside the classroom throughout the semester, hampering their progress and level of achievement. The high student to instructor ratio also limits the amount of one-on-one desk critique interaction that is critical to the pedagogy of the design studio. Our assessment of these challenges provides the motive to modify our design curriculum as part of our development of the B. Arch. degree curriculum.

We are preparing a curriculum proposal for submission to our college council that will increase the credit allocation for the second-year through fifth-year studios to 5-6 credits per course with 9-12 nominal lab hours total divided into two or three class periods each week. At the same we are working with the college to reduce the number of students in each studio section, allowing higher allocation of time per student. The longer meeting time and more frequent contact should allow for increased interaction and guidance of each student's development of design skills as well as monitoring and help developing their time-management. This adjustment will also allow students to execute more of their design work in the supportive and guided environment of the studio. This higher allocation of studio credits will also offer more opportunity to integrate knowledge from across the curriculum in the studio work, an important pedagogical goal for our department

where we place a high level of emphasis on building technology. This integrative approach to studio is already supported by a wide range of workshops that offer students supplemental support in their development of technical skills. Along with this modified studio curriculum, the department will prepare a draft outline for a B. Arch. Studio Culture Policy. The full development of the B. Arch. Studio Culture Policy will begin once we have the first cohort of B. Arch. students accepted into the third year so that it will include this cohort's input. This full development of the policy will include a plan and mechanism for assessing and updating the policy. Any updates will be developed with all stakeholders, including all cohorts of B. Arch. students at the time of revision.

Our students typically need to be more focused on efficient time-management and work-school-life balance than students at residential colleges. This factors into our management of the studio work-load and student access to their studios. As so many of our students do not have the resources at home to support their studio assignment work, we hope to extend the hours the school is open for student access. At the same time, the department is not contemplating pursuing a 24/7 environment, nor are the faculty promoting in any way the culture of the "all-nighter". Through rigorous attendance policies and in-class mentoring, the department reinforces the development of professional skills in communication, vocabulary, time-management and general conduct throughout the curriculum. The department recognizes this is a critical aspect of the preparation of our students for the workforce.

The nature of our program within an open enrollment college presents a conundrum in regard to the sequence of the curriculum; many students take courses at different paces based on their level of academic preparation as well as outside factors such as simultaneous employment, meaning that some are following our recommended sequence but many are not. We currently emphasize the flexibility of our curriculum as it allows students to adjust to the many challenges of working towards their degree, but this comes at the price of integration and reinforcement of learning objectives between specific courses. Our curriculum modifications seek to continue to find the right balance between a reinforced integrated sequence and flexibility, but we anticipate that the final three years of the B. Tech. degree will require a tighter adherence to the sequence.

Residential colleges with 24/7 access to studios have the potential for strong bonds forming between students over the long hours spent together in the studio. These bonds are an important aspect of architectural education, both in the sense of camaraderie that encourages students to persist through the challenges as well as the peer learning that is a significant augmentation to faculty-student learning. While the department is not seeking to develop 24/7 access, there are other opportunities to improve the bonds between students and to facilitate peer learning outside the classroom. The participation in the Solar Decathlon was a significant pursuit that brought students together across a number of classes in an intense and challenging environment. Another contribution to the development of relationships between students is made by clubs on campus and their culture of support and building friendships. Our students support an active Architecture Club, Digital Fabrication club, and as well as a few specialized clubs, with combined membership of over 100 students, which host lectures, workshops, and sponsor travel, both local and international, to visit significant architectural works.The department continues to explore methods and look for opportunities to build the camaraderie between our students.

I.1.3 Social Equity

City Tech offers a diverse, multicultural learning environment. Students and faculty members come from more than 138 countries and speak over 85 languages. Of those responding:

- 43% of the students were born outside of U.S.
- 62.3% report a language other than English spoken at home
- 33% list their parents as college graduates
- 58% of the students report household incomes of less than $30,000
- 80% of incoming freshmen receive need-based aid
- 67% of continuing students receive need-based aid
- 25% percent work more than 20 hours per week.

Enrollment by Ethnicity as of Fall 2015

	Students				Faculty				Staff			
	College		Department		full time		adjunct*		full time		part time	
	total	%	total	%	total	%	total	%	total	%	total	%
American Indian or Alaskan Native	68	0.4%	---		---							
Asian	3,425	19.7%	106	15.3%	3	15.0%						
Black or African American	5,260	30.2%	130	18.8%	1	0.5%			2	67%		
Hispanic/Latino	5,573	32.0%	277	40.0%	3	15.0%			1	33%		
White	2,015	11.6%	97	14.0%	13	65.0%						
Native Hawaiian or Pacific Islander	77	0.4%	---		--							
Two or more races	174	1.0%	4	0.1%	--							
International	829	4.8%	77	11.1%	--							
Grand total	**17,424**		**693**		**20**				**3**			

Source: AIM Data Overview at http://air.citytech.cuny.edu/air/Data_Overview.aspx
*data not available

For the last five years City Tech has been among the leaders in the diversity of the students it serves among all Comprehensive Colleges/Bachelor's (North) in the annual survey by U.S. News & World Report. This survey also lists the College among the leaders in new student retention in colleges of its type. The college is a federally designated Hispanic Serving Institution (HSI).

Students enter with widely disparate levels of academic preparation, professional goals and personal circumstances. As an open access institution, City Tech's historic mission has been to offer opportunities for educational advancement to students regardless of financial circumstances or prior academic achievement. Several unique programs strive to support and enable students to achieve a college degree. Among these are:

- City Poly High: City Polytechnic High School of Engineering, Architecture and Technology, which opened in fall 2009, is one of New York City's first four 9-13 year high schools, where students can earn both a high school diploma and an associate degree through a comprehensive six-year course of study. In 2015 it became one of the New York State P-TECH network of schools and adopted a 6 year model, replacing the trimester with a more traditional semester calendar. The school is a result of a partnership between the Departments of Architectural Technology and Construction Management at City Tech with the New York City Department of Education (DOE) and National Academy Foundation (NAF). Curriculum at this school, which integrates academics with technical subjects, was developed by City Tech faculty.
- SEEK: The Percy Ellis Sutton SEEK (Search for Education, Elevation and Knowledge) program provides promising students with financial assistance beyond tuition, as well as offering a wide range of counseling and academic support services, including career and academic planning, personal counseling, a state- of-the-art computer lab, tutoring in many subject areas and academic coaching.

- ASAP: As a university wide initiative for community colleges, ASAP (Accelerated Study in Associate Programs) was started in fall 2015 at City Tech. It emphasizes enriched academic, financial and personal support for students including comprehensive and personalized advisement, career counseling, tutoring, tuition waivers, MTA MetroCards and additional financial assistance to defray the cost of textbooks. City Tech is one of the senior colleges in the CUNY system to provide ASAP services to students who are working toward an Associate degree and a college where ASAP will focus heavily on students in STEM disciplines. The program has garnered national recognition, including a recent citation by President Obama for doubling the graduation rates of participating students.
- Peer Mentoring: A select number of female students receive compensation to support and tutor other female students. Currently this program is funded through a grant to the Construction Management/ Civil Engineering department. Our department has applied for independent funding to support this initiative.
- The Learning Centers: Located at the central Namm building on campus, the learning centers provide our students with free access to computers, software and tutoring in support of their studies. The Voorhees building, which houses the Architecture program, has an open computer lab which provides access to and support with all of the advanced software used in our curriculum. Architecture students are hired to work here to mentor other students.
- Departmental Workshops: Offered in support of our highly technical curriculum these workshops are coordinated with our curriculum offerings and provide students with access to tutors to facilitate the use of software, fabrication equipment, shop tools, and other technology.
- Online Tutorials: A library of Video and PDF tutorials created by faculty, staff, and grant initiatives provides additional support accessible both on and off campus.
- One-on-one help and Classroom Support: College Lab Technicians (CLT's) provide one-on-one and small group support to students on a regular schedule or by appointment. Additionally CLT's provide in-class support to assist faculty in the teaching of software and advanced technical skills. CLT's are typically hired from among our more advanced students and adjunct faculty.
- Design_Serv: Emerging architects in the New York City architectural community are recruited to serve as mentors to our students

Enrollment by Gender as of Fall 2015

	College		**Department**		**Faculty**		**National***
	total	**%**	**total**	**%**	**total**	**%**	
Female	7,640	43.8%	233	33.6%	7	35%	45%
Male	9,784	56.2%	460	66.4%	13	65%	55%
Grand total	**17,424**		**693**		**20**		

*http://www.naab.org/accreditation/statistics/NAAB_2015AnnualReport_Part1_Final-4.pd

I.1.4 Defining Perspectives

A. Collaboration and Leadership

The Department of Architectural Technology at City Tech encourages cultural awareness and understanding within its diverse student body by developing collaborative skills and leadership among students. The curriculum has developed over the years to assure that collaboration is fully integrated in the following ways:

- Collaborative team studio projects: Across the studio sequence in both design and building technology, students participate in team projects that supplement their individual work. Collaboration involves merging individual ideas into unified concepts, disseminating workflows among team members and managing time efficiently.

- Placed-based learning opportunities: Using New York City as a living laboratory, advanced studios and electives extend place-based learning beyond field trips and site visits to the actual engagement of community stakeholders in the institutions and agencies that serve the community. For several years now, the seventh-semester urban design studio has worked with a community liaisons (Chinatown Partnership, Brooklyn Tech Triangle, Industry City) to guide the students' project work.
- Partnering with the community: Community stakeholders have facilitated team projects as "clients", providing a real world experience as students develop programs and design projects that fulfill their "clients" needs. These experiences ask students to listen, understand their clients' needs, work towards consensus and communicate their solutions both graphically and orally in a community-based forum.
- Interdisciplinary learning: In keeping with City Tech's new requirement that all graduating B. Tech. students complete at least one Interdisciplinary (ID) course (one that requires co-teaching with one faculty member from arts and sciences) the faculty of the department of Architectural Technology has both developed and taught courses that encourage our students to study issues from multiple points of view. The ID course "Learning Places" pairs the study of Urban Spaces in NYC with library research techniques. The "Closing the Loop" initiative sequenced courses in building technology, sustainability and fabrication as a capstone project that has been presented at the "Facades Plus" conference.
- Research initiatives: Advanced curricula in both the design studios and lab electives are focused on research in sustainability, resiliency, and performative design. Students develop confidence in approaching research questions as they work collaboratively to achieve collective results. Research-based curriculum is complemented by the Emerging Scholars program where students work in small groups directly with a professor on a research project that is shared at a college-wide public presentation at the end of each semester.

Supplementing these curriculum-based initiatives are a number of programs in which students develop collaborative and leadership skills that help prepare them to enter the professional world:

- Architecture Club: The Architecture Club has been integral to the Department since its inception. Providing leadership opportunities, this faculty-guided student-led organization sponsors guest speakers, holds fundraisers and provides student activities to promote a greater appreciation for the field of architecture. As funds are available the club sponsors international travel to visit significant architectural works abroad and local travel that makes use of New York City and its environs as an extension of the classroom.
- Design/Build: In the 2014-15 academic year a group of dedicated students under the direction of our faculty members participated in the US Department of Energy Solar Decathlon, a design/build project. Covered in greater detail elsewhere in this report it provided a unique opportunity for hands-on learning in a construction setting and acted as a catalyst for close relationships with industry and professional partners.
- Study abroad: Since the winter break of 2014, and continuing on an annual basis, a select group of students have traveled abroad along with architecture faculty to study environmental concerns and participate in community-based service projects.
- TECHNE: A publication presenting student and faculty work from across the architecture curriculum, *TECHNE,* now entering its fourth year of publication, serves the critical role of documenting and disseminating the work of our faculty and students. Under faculty guidance, the student editorial team chooses a theme relevant to current architectural discourse, solicits submissions from faculty and students, edits the submitted work and formats and distributes the publication.
- Professional Organizations: Students and faculty participate in a wide range of activities sponsored by both the American Institute of Architects (AIA), the Society of American Registered Architects (SARA), and the Steel Institute of New York. Members of the full time faculty have served as past presidents of local chapters of both organizations (AIA, SARA) and continue to serve as member of local executive councils.
- Internship Program: Our well-developed internship program has given our students professional working experience while still enrolled in our program and has provided direct access to full time employment.

B. Design

Design that engages building technology, sustainability, and local communities in urban environments is at the core of our curriculum. Our studio sequence teaches fundamental principles of design by studying various building typologies through projects which increase in complexity and scale and which address current urban issues. Foundational design studios are taken in tandem with building technology studios so that students are simultaneously exposed to both the conceptual art of architecture and the science of building. Studio projects in both courses use New York City as a lab for learning and envisioning the future. The following aspects are typical of our design sequence:

- Local sites: Taking advantage of the rich environment of New York City, local sites are typically used in our studio courses affording our students the opportunity to make extensive site visits. Studios encourage research that reinforces and develops a working knowledge of New York City building, zoning, and fire codes.

- Community-based projects: As mentioned earlier in this report under *Collaboration*, community-based projects ask our students to engage with and interact with members of local communities throughout New York City. These high-impact learning opportunities provide hands-on experience dealing with clients and real issues affecting urban environments.

- Case studies and Field trips: Case studies and field trips to local architectural landmarks are typically a part of the research phase of design studios and occur outside of class time led by faculty or through independent initiatives by students. A second significant asset of our location in New York City, and as a result of our strong industry ties, are field trips to local architecture, engineering and construction firms, construction sites, and product vendors' offices.

Our studio sequence has also undertaken the following special initiatives to reinforce our obligation to nurture students to be well versed in the many issues related to the design of the urban environment.

- Intersections Sponsored originally by our department's NSF FUSE-LAB grant this annual conference provides a forum for outside experts well-versed in cutting-edge technologies and initiatives to share their knowledge and experience with other professionals, faculty and our students and provides an opportunity to form relationships with a broader network of prominent professionals. https://openlab.citytech.cuny.edu/fuselab/event/intersections-2015/

- Emerging scholars: Mentioned earlier in this report this initiative encourages students to engage directly with their professors to conduct research. Faculty and students have participated in this program to delve more deeply into design-related issues beyond the structure of the design studio. This format has allowed for extended study spanning multiple semesters and has been particularly effective in community-based master planning initiatives.

- Solar Decathlon 2015: In 2012 we were one of 18 architecture programs from across the country accepted to compete in the US Department of Energy's biennial Solar Decathlon Competition. The challenge asked each team of students to design and build a Net-Zero, energy efficient home. The competition required that the power needs of the home be met by a solar powered array and that it be designed and built locally and delivered to the competition site in California. To facilitate the success of the project a wide range of courses from design and construction detailing to energy analysis and design/build were all focused on the competition. Named DURA (Durable, Urban Resilient and Adaptable) our design solution responded to the impact of 2012's Superstorm Sandy which flooded NYC taking large parts of the city off the power grid. A unique urban solution, our entry called for the development of a low scale four-story building, with four to eight apartment units, each independently powered by a vertical solar array on the south façade, where each unit could survive "off the grid" in the event of another storm. Our entry finished 5th place in engineering and 7th place in Architecture. A model for future design/build initiatives at the college, this seminal experience, has redirected careers, opened up new opportunities and has armed our students with the knowledge that when they apply themselves they will succeed.

The learning culture of the department centers around hands-on, placed-based learning that addresses real and current issues affecting urban living. This manifests itself through both studio and independent research projects with professors that encourage collaboration with local communities and investigate and analyze issues related to topics such as resiliency, sustainability and code and regulatory requirements. Since the needs of communities and cities are constantly changing the program ensures that it is addressing current and relevant architectural, technological and urban issues by continuously soliciting feedback from guest jurors at student reviews, organizing course coordination meetings with all full-time and adjunct professors and engaging in discussions with industry partners.

Our program is committed to utilizing the latest software and digital fabrication technologies so that our students graduate with the necessary skills to make them strong candidates in a job market increasingly focused on the technology that drives the profession. Our fabrication lab is equipped with the latest 3D printing and fabrication technologies. The use of these digital tools is encouraged in the course curriculum and through extracurricular activities, such as the fabrication club, and independent research projects with professors whose expertise lies in the development and use of these tools.

Unique to our program is the integration of the Digital Spine which occurred during the extensive revision of our department's curriculum which began in 2010. This highly successful initiative removed “software only” courses from our curriculum which freed up credit hours allowing for the introduction of new courses. The teaching and learning of software now occurs within the design and building technology sequences and is integrated into the studio curricula as the “Digital Spine.”

C. Professional Opportunity

Throughout its history, the Department of Architectural Technology has been dedicated to developing the capacity of students to succeed in the workplace. As the nature of our profession changes, the department has moved from hand drafting to digital technologies and from simple to complex design projects. Increasingly we have focused on soft skills such as analytical thinking and written and verbal communication. The department is a bridge between academia and the profession. Some ways in which this is accomplished are as follows:

- Advisory board members are active in leading architectural and engineering firms.
- Adjunct faculty members are hired from prominent firms such as KPF, Thornton Thomasetti, SHoP, Diller Scofidio and Renfro, Studio Libeskind, and New York City departments, such as the NYC Department of Design and Construction.
- Workshops and seminars to support classroom learning. As an example, to teach acoustical modeling, ARUP engineers invited students to their office to test their designs; an engineer from SOM gave a lighting modeling seminar.
- Guest speakers include staff from Grimshaw, SHoP, Snohetta, Hadid, Calatrava, and Hebling.
- Intersections For three years from 2013-2015, the department hosted an all-day conference highlighting advances in digital technologies and performative architecture.
- Class visits to architectural offices and ongoing projects include Eisenman, Acconci, Selldorf, Perkins Eastman, FXfowle, Vinoly, Grimshaw, Snohetta, BIG, and SOM. Visits are also organized by the Architectural Club.
- Yearly workshop series on “Getting Ready for Work” covers resume writing, professional portfolios, interviewing techniques, soft skills, and internship requirements.
- ARCH 4880, a course on professional practice, is required in the fourth year. An internship class is offered to students who are employed in architectural offices or city agencies.

Under New York State Education regulations, holders of a B. Tech. degree are eligible for architectural licensure with slightly different requirements than those with a B. Arch.. Professor Barbara Mishara maintains contact with the NYS Board of Architecture and advises students. In May 2015, she was appointed an Architect Licensing Advisor with NCARB and attended the yearly conference in August 2015 and 2016.

D. Stewardship of the Environment

Superstorm Sandy made a direct and visceral impact on the students in our department. Many were displaced from their homes and unable to attend classes or complete coursework. Consequently, the rigors of analyzing, evaluating and caring for the immediate urban environment is imbued with a unique level of urgency. The department regularly hosts events dedicated to understanding the fragility of the urban environment. This includes participation with the **Brooklyn Waterfront Research Center** and faculty coordination of the first symposium on '**Extreme Heat: Hot Cities- Adapting to a Hotter World**." **HURRIPLAN** training is run annually at the department in conjunction with the **AIANY Committee on Design for Risk and Reconstruction**. The **National Science Foundation** funded an Advanced Technology Education grant that has enabled the department to purchase tools such as hardware and software for students to run environmental simulations and verify their findings with field measurements. Faculty have been hired to support this effort and the curriculum is developing a sustainability spine to ensure real, action-oriented skills and knowledge that are integrated into each course. In 2015, students and faculty worked tirelessly to design and build the first **Solar Decathlon** project from our college. This work illustrates our dedication and commitment to actively engage the environment and appraise our responsibility to it.

E. Community and Social Responsibility

The ethical practice of architecture requires recognition of the impact of design, planning and construction on the environment and community. Architectural education must endeavor to instill and build awareness and dedication to responsible practice for the public good.

Social responsibility is important to our program and our students at City Tech. Our student body is keenly aware of the social and economic challenges faced by them and others in their neighborhoods and communities. This awareness is a foundation upon which to build an increasingly broad understanding and dedication to the responsibilities they will take on as professionals. Social and community responsibility is a focus that appears in numerous places throughout our curriculum.

For example, our design curriculum includes projects that require the students to work with specific communities in New York City to address important urban challenges. Academic service learning projects are developed and executed in courses as part of the integration of High Impact Educational Practices in our curriculum. Our program highly values community resilience and emphasizes it in multiple courses. Recent and current events impacting our urban community are used as points of departure in lectures, discussions and assignments.

I.1.5 Long Range Planning

The long-range planning objective in our department is founded on the commitment that our students have the necessary skills to satisfy the ever-changing demands of the profession. In order to ensure we are meeting our long-term objectives we engage an advisory board, conduct intensive 10-year reviews and engage in periodic self-assessment through student evaluations, course-coordination meetings and course presentations to the entire faculty.

Our advisory board consists of established architectural practitioners, academics and industry partners. Our faculty meets with the board every year to review our curriculum and receive feedback as to whether or not we are addressing relevant content and teaching appropriate skills. This feedback helps to ensure we are producing graduates who meet and exceed current industry expectations.

Every ten years a departmental self-evaluation is produced by the faculty that reviews and assesses the department's mission and vision, faculty, student population, resources, curriculum and facilities. This study is presented to an outside evaluator who visits the school and makes recommendations for improvements and offers guidelines for future direction.

Finally, the department uses three frequent methods of periodic self-assessment. Our curriculum committee meets regularly to ensure that courses are aligned with the department's mission and vision; professors are observed each semester by full-time faculty members to confirm that course content is being delivered as expected; Student Evaluations of Teaching (SETs) are a college-wide assessment documenting student evaluations of teaching which provides direct and anonymous feedback to full and adjunct faculty. The data gathered from these assessments in used to inform strategic planning decisions by the department.

Although we have mechanisms in place to help us fulfill our current objectives we see the accreditation process as an opportunity to revisit our vision and establish new long-term goals. Looking ahead, we identify several areas in which to advance and improve our program:

- Building a studio culture. Currently, architecture students do not have dedicated facilities in which to do their work and must rely on home resources and the availability of space at school. A dedicated studio spaces for the B. Arch. students will ensure that students have full accessibility to the resources of the department and will also facilitate student interaction.

- We have developed a strong program in building technology and digital fabrication, however we see a need to provide additional instruction in architectural theory, history and the study of architecture cultures outside the Western tradition.

- Introduce Virtual Desktop Infrastructure (VDI) to demonstrate a model for an interactive design classroom.

- Reassemble a more diverse advisory board: to include diverse professionals representing institutional authorities, community interests and activists as well as technical and design professionals.

- Continue to improve our assessment methodologies

- Establish articulation agreements with NYC Career and Technical Education (CTE) high schools to bring their students into our AAS, B. Tech., and B. Arch. programs. Establish similar articulation agreements with graduate schools to provide pathways to MArch degrees for our graduates.

- Establish our department as a community resource for: building and neighborhood assessment, planning, retrofitting, and analysis.

- Establish industry research and analyses facilities at the department: this may include building systems mock up testing, fabrication, and simulations.

I.1.6 Assessment

The Department of Architectural Technology has developed a culture of assessment, but one that needs to be broadened and codified so that it better serves the development and refinement of curriculum adjustments as well as teaching methodologies and program-level review. We currently assess at the program level and course level. Our assessment focuses on both skills and knowledge specific to the discipline, but also general education skills and knowledge, including the interdisciplinary courses that we have helped develop that are available to the full college community.

At the program level, CUNY requires non-accredited programs to conduct a self-assessment on a 10 year cycle, which the department has recently completed. This assessment requires a self-assessment report, review by the Provost's and Dean's office, a third-party reviewer assessment and report, and a proposal for

adjustments and future initiatives. Copies of the documents of our recently completed review are available through the Chair's office.

The current course level assessment process in our department consists of periodic course reviews that are conducted during faculty meetings to gain an insight into student performance and the assessment by the course coordinator of the current challenges the students and faculty are contending with in the course.

The department is developing more formal and holistic approaches to assessment which we intend to institute over the next 2-3 years as our first cohort moves through the B. Arch. program. These approaches include assessing student reading through the college wide READ program, developing visual tools for assessment of student fluency with architectural drawings at a technical level and developing a "whole student" approach to assessment through the institution of e-portfolio through the college's OpenLab platform. This holistic approach includes documenting and reviewing a wide range of each student's activities in the classroom, including note taking, sketchbook work, reflection, design process and technical drawing.

Section 2. Resources

I.2.1 Human Resources and Human Resource Development

Faculty members in the department of Architectural Technology have professional backgrounds outside of academia, providing students with the benefit of extensive real-world experience. There are 20 full-time faculty members in the Department of Architectural Technology. All are registered architects; 19 are registered in the United States and one in Costa Rica. All have advanced degrees and three have PhD's.

Our part-time instructional staff of over 60 adjuncts hold prominent positions in city agencies, at prestigious public or not-for-profit institutions, and with the region's leading private architecture, design and engineering firms. Faculty maintain close ties to industry. This often leads to student internships and permanent employment. The resumes of full-time faculty are available in **Part Three, 3.2** below.

Evaluations of full-time faculty are performed on an annual basis by one of the five elected members of the Department's Appointments Committee. These evaluations are filed in the College's Institutional Staff Relations (ISR) office as part of the faculty member's permanent file. Peer observations of faculty teaching are also performed on a biannual basis for full-time and adjunct faculty.

Criteria for evaluation is based on teaching effectiveness as demonstrated by teaching observations as well as student evaluations of teaching, scholarly production, including publications and research, and service to the department, college and university system.

Students also have the opportunity to evaluate a faculty member's teaching performance each semester. At the end of the semester, students are given Student Evaluation of Teaching forms. These forms are processed by the College's Assessment and Institutional Research (AIR) department. The results of the student evaluations are given to the department chairperson and the subject professor for review and dissemination to faculty. The results are also included a faculty member's permanent file at the ISR office.

Professional Development

Professional development for faculty and staff are provided by the Faculty Commons, focusing on pedagogy and scholarship, grant writing, grant application assistance and research techniques, and iTEC, focusing on the use of instructional technology. Additional training is provided by the Office of Faculty and Staff Relations on topics ranging from compliance courses to enhancement of administrative skills. Assistance with assessment training is offered through the college's department of Assessment and Institutional Research (AIR).

The Faculty Commons is a center for teaching, learning, scholarship and service that coordinates professional development, grants, and assessment activities of faculty at New York City College of Technology. Faculty Commons adopts a programmatic approach to professional development and operates as a faculty resource and think tank where members collaborate on a variety of projects to shape curriculum, pedagogy, and assessment.

Below is a list of Faculty Commons sponsored programs:

- *Nucleus: A Faculty Commons Quarterly* showcases creative and scholarly faculty initiatives at City Tech undertaken through the Faculty Commons. The website is a dynamic tool that houses up-to-date information about the Offices of Assessment and Institutional Research and Sponsored Programs. The professional development arm features a monthly calendar in which events that are sponsored by PDAC, Writing Across the Curriculum (WAC), Ursula C. Schwerin Library, Instructional Technology Center (iTEC), First Year Writing, Reading Effectively Across Disciplines (READ), First Year Programs, Summer Institute of Teaching and Learning, Bridging the Gap study-group inquiry based seminar, and more are open to part- and full-time faculty and staff. Faculty are encouraged to participate in First Year Learning Communities and General Education electives so they can learn how to communicate and structure interdisciplinary assignments, modules, and courses around questions about the human condition, its past, present and future impact.
- Open Lab is an internet platform which is a place to learn, work, and share. It is the College's online community, in which courses, clubs, projects and people share their interests, talents, and academic work. This platform, which incorporates e-portfolio, is an increasingly significant tool for our day to day operation of our college. It provides a critical communication and coordination tool as well as a virtual space for interaction and learning.
- Living Lab Faculty Fellows participate in the Living Lab's General Education Seminar. The seminar offers the opportunity to share a rich and collegial learning experience with faculty members from other disciplines and to contribute to the success of a truly transformational project. "A Living Laboratory: Revitalizing General Education for a 21st-Century College of Technology" is a major initiative funded by the U.S. Department of Education's Title V program. Launched in the spring of 2011, it aims to re-envision General Education at City Tech using the conceptual model of the college and our Brooklyn Waterfront location as a "living lab."
- Faculty members are encouraged to attend professional conferences, with financial assistance from the Professional Development Advisory Council. PDAC is a committee of faculty representing most of the departments on campus which review applications for professional travel funding and makes funding recommendations. The individual schools may also add supplemental funds to support faculty travel for professional development. Applications which support and advance faculty scholarship aligned with the college mission are funded. The funding rate approaches 100% of applications – most rejections are due to incomplete applications or funding requests outside of the fiscal year. Abstracts summarizing faculty professional travel are posted on the PDAC web pages.
- Reading Effectively Across the Disciplines (READ) is college-wide initiative which provides workshops and individualized faculty professional development, to support the adoption of strategies in classroom instruction and assignment design to improve student reading comprehension.

Student Support Services

All full-time faculty participate in student advisement. Throughout the semester, faculty maintain office hours for two hours per week. These hours are doubled during Early Advisement and Registration periods in the middle of the semester as well as Late Advisement and Registration periods in the winter and summer between semesters.

First-time students are advised in the college's New Student Center, typically the semester or summer before they begin classes. The Center works closely with the department to assure that the students register for the correct courses, and shows students how to use the online registration system, CUNYfirst. Subsequently, students receive advisement from program faculty. The department's advisement program serves not only the function of advisement of courses needed to fulfill degree requirements but also provides a time for mentoring students through discussion of career goals.

Students looking for job placement assistance are referred to the department's Job Placement Coordinator, Prof. Ken Conzelmann. He maintains a database of student and graduate resumes and employer contacts.

See section I.1.4 for further discussion of student support services.

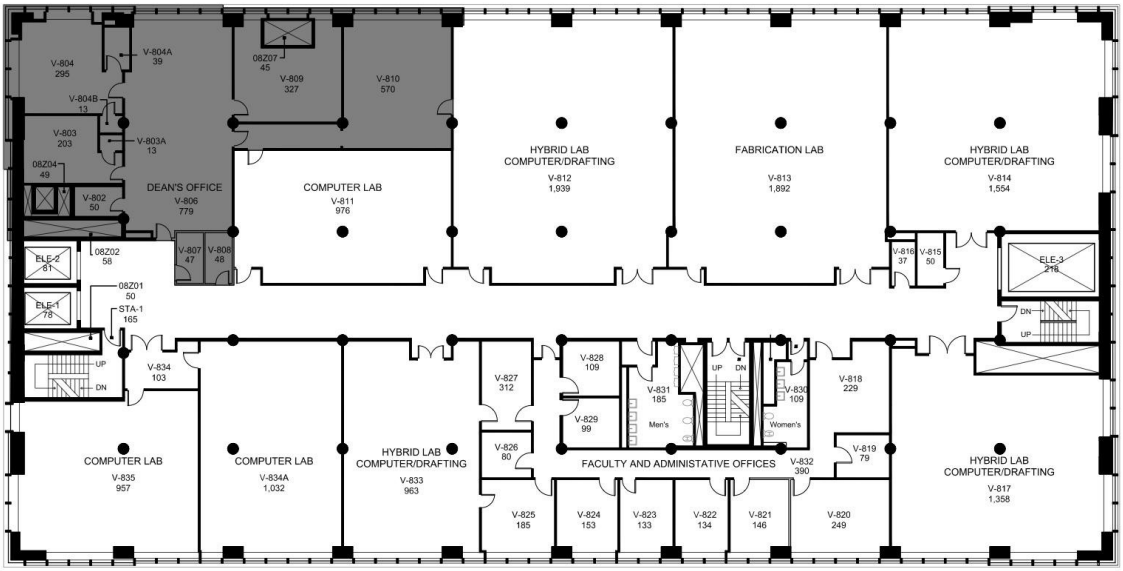
I.2.2 Physical Resources

The Department of Architectural Technology is located on the eighth floor of Voorhees Hall. Classrooms, computer labs, and faculty offices occupy 12,682 SF or 87% of the net floor area. The remaining 13%, or 1,951 SF, is occupied by the office suite of the dean of the School of Technology and Design. Additional square footage on the second floor is dedicated to faculty cubicles. There is also a drafting studio as well as some standard lecture classrooms on the third floor.

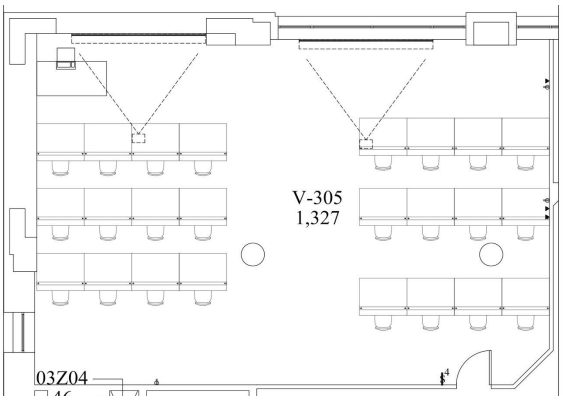
Voorhees Hall underwent a $38 million renovation funded by CUNY-Wide Condition Assessment Funds; this was completed in spring 2013. Work included a new glass facade and lobby improvements. Additional windows were added to increase natural lighting. The project was managed by the Dormitory Authority of the State of New York (DASNY) and was completed under budget. The surplus funds were used to enhance classrooms, faculty offices, the cafeteria, lobby, and common spaces. Work on the interior of the building began in summer 2013.

COURSE OF ACTION: Physical Resources *(Course of Action Item 3.a)*: The Department of Architectural Technology is currently serving a large student body of 700-800 students with a full-time faculty of 20 and a part-time faculty of approximately 60. We anticipate our initial B. Arch. cohorts will be in the range of 30-45 students. The first two years of the program will have all students taking courses together, with the same total number of credit hours as the current AAS program, but with a slight increase in the teaching load due to the maximization of lab hours for studio and building technology courses.

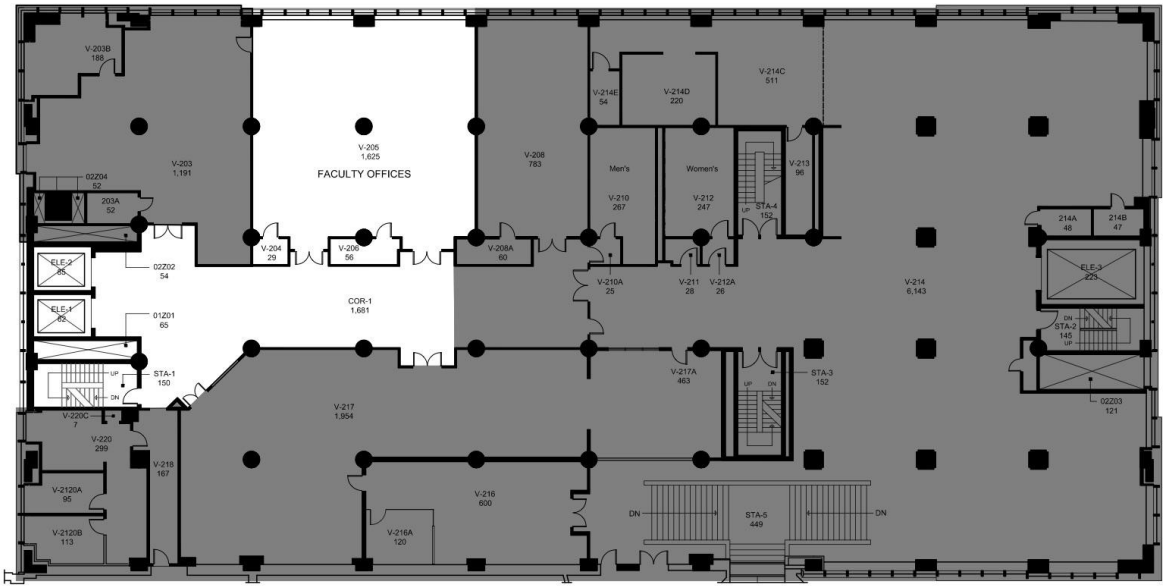
Current Space Allocation:



Department of Architectural Technology Primary Floor Plan (8th Floor, Voorhees Hall)



Additional Classrooms (3rd Floor, Voorhees Hall) (Particular Classroom Varies)



Second Floor Voorhees Hall
Department of Architectural Technology

Additional Faculty Offices (2nd Floor, Voorhees Hall)

ANALYSIS OF DEPARTMENT SPACE RESOURCE NEEDS

	Studios (Hybrid Labs)	Studio	Computer Labs	General Classrooms
Existing	4	1	3	4-5
Required 2017-2018	**6**	1	**4**	4-5
Required 2019-2023	**8**	1	**4**	4-5
Total New Classrooms	**4**	**0**	**1**	**0**

Studio space is the most critical space typology for any school of architecture due to the clear hierarchical position of the studio curriculum as the place for practice, exploration, and synthesis of the broad range of skills and knowledge inherent in the discipline. We are currently making due with our existing space, assigning studio courses into computer labs that are not properly setup for the range of activities that take place in studio courses (hand sketching and drawing, desk critiques, model making, large format drawing analysis and layout, group discussion, pin-up presentations…). An analysis of the modified curriculum for the AAS program as well as the new B. Arch. program reveals that the department will require 2 new studio spaces by the fall of 2017 as well as one additional computer lab. Another 2 new studio spaces will be required by fall of 2019.

The administration is in the process of re-planning the third floor of Voorhees Hall, with new studio and lab space being assigned to our department. We will work with the administration to coordinate our specific program requirements for these spaces and confirm their availability by the required dates.

The configuration of each type of instructional space (both new and existing) will be studied for adaptation to accommodate multi-modal teaching, including facilitating group discussion, teamwork, in-class research, and dynamic presentations. All spaces will need to provide a base level of student access to networked digital technology in addition to the provisions at the instructor podium.

As a continuation to the important efforts of the Solar Decathlon in 2013-2015, as well as in support of a new Design to Build studio, the department requires formal arrangement for access to a wood shop as a complement to our fabrication lab. Currently the department is a guest in the shop of the CMCE department, which does not allow adequate class time and access outside of class times. We will continue to work with the administration to address this need.

Our faculty office space also needs to be addressed to improve departmental communication and more efficient and effective access for students during advisement periods. The primary challenge in the current configuration is the dispersed condition of having a small set of offices within the department's administrative space on the 8th floor and the remaining offices and support space 6 floors below, disassociated from both the administrative center as well as the majority of studios and classrooms. We will continue to work with the administration to consolidate our faculty offices so that they provide direct access for faculty, staff, and students.

I.2.3 Financial Resources

New York City College of Technology is a public institution of higher learning, as is the entire City University of New York system. It is supported by the State and City of New York utilizing tax levy funds, as well as revenue generated by tuition. The State and the City of New York have provided continuous legislative budgetary support.

The budget for the University is appropriated by the State and City. The State of New York is the principal funding source of the University, financing 46% of the fiscal year 2014 operating budget. Tuition revenue, which must be recognized and appropriated by the City and State, is the second largest source of funding, comprising 44% of the fiscal year 2014 operating budget. The City of New York finances the remaining 10% of the cost of operating. The University annually submits an operating tax-levy budget request to the State and the City that is comprised of both the mandatory, or base-line needs, and programmatic requests. The mandatory requests include contractual salary increases calculated by the colleges and other than personal service (OTPS) inflationary increases that are based on previous year expenditures plus an increase determined by the application of the Higher Education Price Index. It also includes requests for rent increases, fringe benefits, energy, and new building needs. The programmatic request is based on University Program initiatives outlined in the Master Plan and is developed by the University's central leadership in consultation with various CUNY constituencies, including members of the Board of Trustees, College Presidents, and faculty and student representatives.

The annual operating budget of the New York City College of Technology at the City University of New York is divided into four areas:

1. Full- and part-time faculty salaries (PS)
2. Other than personnel services (OTPS): the operating budget for general supplies/ laboratory materials replenishment, tools, office supplies, etc.
3. Temporary services (TS); supports temporary administrative and teaching laboratory support personnel
4. Tech Fee: a student fee which is used to provide computer software peripherals and other technical equipment and supplies that are used by students. Each year the department submits Tech Fee requests, which are reviewed by the Tech Fee Committee, which recommends funding.

COURSE OF ACTION: External Support *(Course of Action Item 3.h)***:** The Department of Architectural Technology is eager to continue the project of gaining external support outside of the college and the university. The department has pursued a larger visibility and professional community engagement through a number of ongoing initiatives, including hosting symposia, organizing student exhibitions at Borough Hall, hosting continuing education courses, inviting guest lecturers and jurors, and publishing and distributing our departmental journal, TECHNE. Our advisory board has offered the department important feedback and support from local, national, and international architects, engineers, and academics. We are currently in the process of reconstituting our advisory board, targeting members that can continue to advise but also raise additional funds and contribute resources to the department. Additionally, the Solar Decathlon project offered the opportunity to seek support from local businesses and manufacturers, relationships that we intend to maintain and build on in the future.

While the college has a formal alumni association, the department has been building direct communication and tracking of alumni. The department is building an alumni directory, using social media to communicate and track alumni, and administering surveys to better understand how our graduates are performing in traditional or nontraditional career paths.These efforts will continue and be made more robust over the course of our candidacy to build a better feedback loop for curriculum development and database to track and analyze the performance of our graduates.

I.2.4 Information Resources

CUNY’s library system is a federation of 28 libraries and the CUNY Central Office of Library Services (OLS), which supports the university’s libraries so that they may better serve students and faculty. At each college,

the library plays a major role in supporting academic programs, teaching, and learning, and facilitating the curricular and research activities of faculty and students.

CUNY faculty and students may use and borrow materials from any of the University's libraries regardless of their college affiliation. CUNY's libraries also lend devices, such as laptops, calculators, and digital cameras, to support student work.

The Ursula C. Schwerin Library at New York City College of Technology is integral to the educational mission of the college, and fosters connections with and supports students, faculty, and staff in their academic pursuits. Library faculty and staff are committed to student success as we implement and acquire those services and resources that will have the greatest positive impact on the diverse City Tech community. The library offers physical and online access to academic resources, information technology, and study space. Our collections provide students with opportunities for intellectual exploration, and library faculty empower students to find and critically evaluate information and its uses. As members of an academic department in the college, library faculty research, innovate, and lead on issues in library and information studies, scholarly communications, instructional technology, pedagogy, and higher education.

The Ursula C. Schwerin Library is home to a variety of resources directly related to Architecture including the Multimedia Center as well as access to: Applied Science and Technology Source, Art Full Text: Wilson, Art Museum Image Gallery, ARTstor, Avery Index to Architectural Periodicals, Bibliography of the History of Art, ebray, GreenFILE, Humanities Source, various JSTOR journals, Material ConneXion, Oxford Art Online, Oxford Reference and SpringerLink Ebooks.

The Architectural Technology Department maintains a library for students to check out textbooks used in courses, other reference books, material samples, and product resources as well as a limited number of other printed materials.

I.2.5 Administrative Structure & Governance

City Tech is one of the seventeen senior colleges of the City University of New York. CUNY is governed by a Board of Trustees. The Board of Trustees approves the Bylaws, which are the highest source of policy within the University. A Chancellor oversees all of the CUNY colleges. Each college has a Foundation Board, President, Provost, Vice President(s), Dean(s), Chairperson(s) and Director(s) of specialized areas (such as Registrar, Counseling, Advisement, Institutional Research, Student Services, Transfer, Financial Aid and other student, faculty and multiple staff support. Since June 2014 the University is headed by Chancellor James B. Milliken, formerly president of the University of Nebraska system, and a nationally prominent leader in public higher education, as the seventh Chancellor of CUNY.

Russell K. Hotzler, PhD, became the eighth president of New York City College of Technology in August, 2004, bringing a wealth of experience in higher education and a deep commitment to enhancing academic opportunities. Dr. Hotzler has been part of the CUNY system for over 40 years. He works with the Board of Trustees, Chancellor, Vice Presidents, Deans, Chairpersons and other constituents to assure that the college fulfills its mission in all areas.

Bonnie August, PhD, is the Provost and Vice President of Academic Affairs. Dr. August has served in this position since February 2005. As the chief academic officer of the College, she oversees faculty members in 27 academic departments, providing guidance for the curricular and instructional development of City Tech's schools of Arts & Science, Professional Studies, and Technology & Design, as well as the Division of Continuing Education, the Library, College Learning Centers, Instructional Technology, Assessment and Institutional Research, and the Faculty Commons.

The college is comprised of three academic schools: Arts and Sciences, Professional Studies and Technology and Design. The Department of Architectural Technology, is housed in the School of Technology and Design, which also contains the following departments: Advertising Design and Graphic Arts, Computer Engineering Technology, Computer Systems Technology, Construction Management and Civil/ Engineering Technology, Electrical and Telecommunications Engineering Technology, Entertainment Technology,

Environmental Control Technology and Mechanical Engineering Technology. The dean of the School of Technology and Design is Kevin Hom, R.A, who has served since October 2010.

The day-to-day leadership of the Architectural Technology Department is the responsibility of the Chairperson. The Chairperson is elected by a majority of the full-time faculty in the department for a three-year term. Professor Sanjive Vaidya served as interim chair of the Architectural Technology Department in the 2015-2016 academic year and was elected to a full three-year term starting in August 2016. Various responsibilities such as curriculum development and review, faculty searches, personnel and budget, accreditation, and other advisory roles are delegated to departmental committees.

The College Council implements the concept of shared governance for the college. Composed of faculty, staff, administrators, and students, the College Council is responsible not only for overseeing the curriculum of the College, but also formulating student-related procedures. In addition, it makes recommendations with regard to budget, the buildings and grounds infrastructure, personnel matters, and governance-related rules and regulations.

PART II EDUCATIONAL OUTCOMES AND CURRICULUM

II.1.1 Student Performance Criteria

As guided by our mission statement the Bachelor of Architecture curriculum will focus on the integration of the technical and design skills necessary to prepare students to join a competitive professional work force. Using the required criteria as set forth by NAAB, below are Student Performance Criteria Curriculum Matrices evaluating the existing B. Tech. program as compared to the proposed B. Arch. degree curriculum. The courses that demonstrate the greatest evidence of student achievement for each of the required criteria have been indicated.

As demonstrated by the matrices, although our current B. Tech. curriculum meets most of the required criteria, the criteria is not well integrated within the different types of courses offered or throughout the duration of a student's tenure at City Tech. The proposed curriculum for the B. Arch. degree is designed to remedy this by meeting each of the required criteria multiple times across the entire curriculum. This will help students to more fully grasp complex and interrelated ideas as they are presented repeatedly and in different scenarios throughout the curriculum.

B. Tech.: Student Performance Criteria Curriculum Matrix

Current Required Arch Curriculum Only (not including electives or common core) for B. Tech. Degree

STUDENT PERFORMANCE CRITERIA MATRIX- CURRENT BTECH PROGRAM

		A	A	A	A	A	A	U	U	A	A	A	A	A	A	U	U	U	U	U	A	A	U	U	U	U	U
		Prof Comm Skills	Design Thinking Skills	Investigative Skills	Arch Design Skills	Ordering Systems	Use of Precedents	History and Culture	Cultural Diversity	Pre-Design	Site Design	Codes and Regulations	Technical Documentation	Structural Systems	Environmental Systems	Bldg Env Sys + Assmbls	Bldg Mtrls + Assmbls	Bldg Services Systems	Financial Considerations	Research	Int. Evals + Decision Making	Integrative Design	Stakeholder Roles in Arch	Project Management	Business Practices	Legal Responsibilities	Professional Conduct
		REALM A								REALM B										REALM C			REALM D				
		A.1	A.2	A.3	A.4	A.5	A.6	A.7	A.8	B.1	B.2	B.3	B.4	B.5	B.6	B.7	B.8	B.9	B.10	C.1	C.2	C.3	D.1	D.2	D.3	D.4	D.5
YEAR 1	ARCH 1110- FOUNDATIONS I																										
	ARCH 1191- VISUAL STUDIES I																										
	ARCH 1130- BTECH I																										
	ARCH 1210- FOUNDATIONS II																										
	ARCH 1291- VISUAL STUDIES II																										
	ARCH1121- HIST ARCH TECH																										
	ARCH 1230- BTECH II																										
	ARCH 1250- SITE PLANNING																										
YEAR 2	ARCH 2310- STUDIO III																										
	ARCH 2321 - HIS ARCH 1900-PRES																										
	ARCH 2330- BUILDING TECH III																										
	ARCH 2370- BLDG. SYS.																										
	ARCH 2410- STUDIO IV																										
	ARCH 2430- BUILDING TECH IV																										
	ARCH 2480- STRUCTURES I																										
YEAR 3	ARCH 3510- STUDIO V																										
	ARCH 3580- STRUCTURES II																										
	ARCH 3610- STUDIO VI																										
YEAR 4	ARCH 4710- STUDIO VII																										
	ARCH 4810- STUDIO VIII																										
	ARCH 4861- PROF PRACT																										

B. Arch.: Student Performance Criteria Curriculum Matrix

Required Arch Curriculum Only (not including electives or common core) for B. Arch. degree

STUDENT PERFORMANCE CRITERIA MATRIX

		A	A	A	A	A	A	U	U	A	A	A	A	A	A	U	U	U	U	U	A	A	U	U	U	U	U
		Prof Comm Skills	Design Thinking Skills	Investigative Skills	Arch Design Skills	Ordering Systems	Use of Precedents	History and Culture	Cultural Diversity	Pre-Design	Site Design	Codes and Regulations	Technical Documentation	Structural Systems	Environmental Systems	Bldg Env Sys + Assmbls	Bldg Mtrls + Assmbls	Bldg Services Systems	Financial Considerations	Research	Int. Evals + Decision Making	Integrative Design	Stakeholder Roles in Arch	Project Management	Business Practices	Legal Responsibilities	Professional Conduct
		REALM A								REALM B										REALM C			REALM D				
		A.1	A.2	A.3	A.4	A.5	A.6	A.7	A.8	B.1	B.2	B.3	B.4	B.5	B.6	B.7	B.8	B.9	B.10	C.1	C.2	C.3	D.1	D.2	D.3	D.4	D.5
YEAR 1	ARCH 1110- ARCH DESIGN I																										
	ARCH 1101- INTRO TO ARCH																										
	ARCH 1210- ARCH DESIGN II																										
	ARCH 1205- BLDG TECH I																										
	ARCH 1221- HISTORY I																										
YEAR 2	ARCH 2310- STUDIO III																										
	ARCH 2305- BUILDING TECH II																										
	ARCH 2350- SITE PLAN + SUSTAIN																										
	ARCH 2321- ARCH HISTORY II																										
	ARCH 2410- STUDIO IV																										
	ARCH 2330- BUILDING TECH III																										
YEAR 3	ARCH 3510- STUDIO V																										
	ARCH 3505- BUILDING TECH IV																										
	ARCH 3580- STRUCTURES I																										
	ARCH 3610- STUDIO VI																										
	ARCH 3605- BLDG SYSTEMS																										
	ARCH 3680- STRUCTURES II																										
	ARCH 3621- THEORY I																										
YEAR 4	ARCH 4710- STUDIO VII																										
	ARCH 4780- STRUCTURES III																										
	ARCH 4810- STUDIO VIII																										
YEAR 5	ARCH 5910- STUDIO IX																										
	ARCH 5921- THEORY II																										
	ARCH 5961- PROF PRACTICE																										
	ARCH 6010- THESIS																										

II.2.1 Institutional Accreditation

New York City College of Technology is fully accredited by the Board of Regents of the University of the State of New York and the Middle States Commission on Higher Education, (3624 Market Street, Philadelphia, PA 19104, 267-284-5000). Individual programs are also accredited by the relevant institution.

II.2.2 Professional Degrees & Curriculum

The development of our Bachelor of Architecture undergraduate degree is a continuation of the trajectory of our curriculum development over the last 13 years.

After a long history of offering an AAS two-year degree with an emphasis on workforce preparation, the department embarked on a series of modifications to our curriculum that were rooted in changes in the profession, improving the general education of our students, and enhancing the pedagogy of our architectural education to better serve our student body.

The first significant change was the introduction of the B. Tech. four year degree in 2003, which added 56-58 credits to the 64 credits required for the AAS for a total of 120 credits. This degree allowed our department to build a higher level of sophistication in our students, introduce a broader range of tools and technical skills, and raise the level of the design studios. This degree still carried a significant emphasis on workforce readiness, with only 21 credits dedicated to design, 34 credits for technical courses, 8 credits for history courses and 6 credits for professional practice courses.

Six years after the launch of our B. Tech. degree, our faculty revisited both degrees to assess:

1. The effectiveness of the curriculum
2. How to better integrate general education learning outcomes
3. How to develop a more integrated approach to teaching design and building technology
4. How to provide students with a choice between a more intensive design sequence or a more intensive technological focused sequence.

As part of this redevelopment of our AAS and B. Tech. degrees in 2009-2010, we mapped our curriculum and skills to the NAAB Student Performance Criteria, seeking to better align our non-professional degrees to the NAAB standards. The result of this round of development is a curriculum that addresses a broad range of the NAAB SPC(s).

Table Showing Evolution of Degree Programs Through Allocation of Credits per Thread

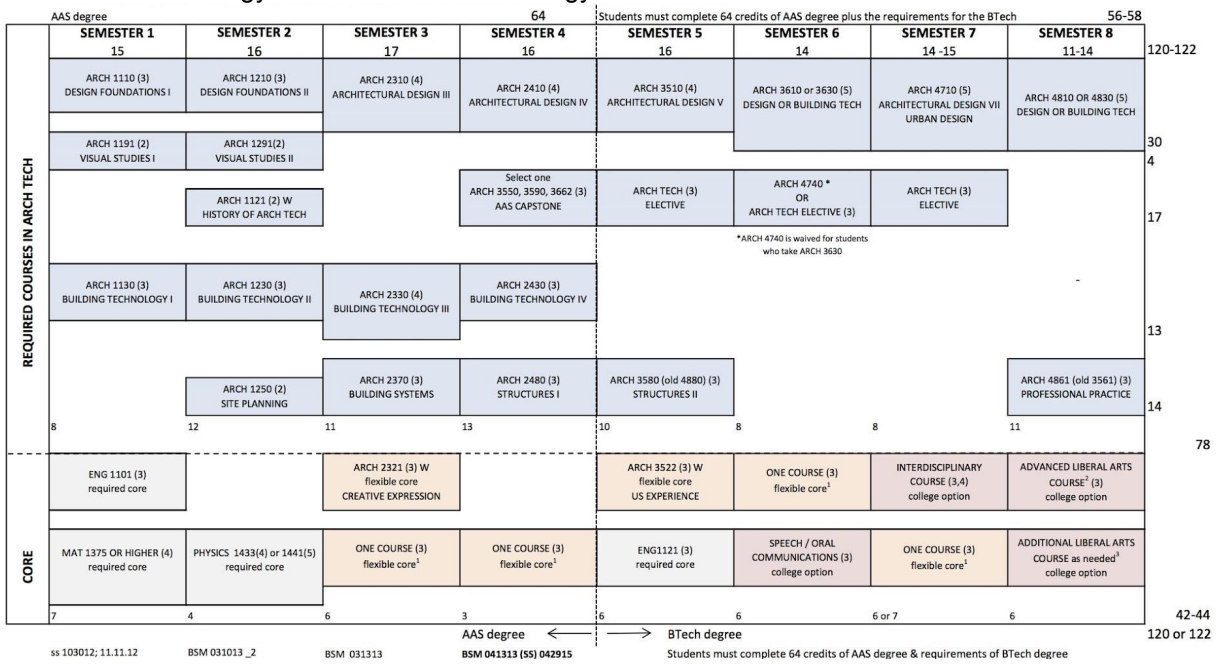
Arch Curriculum Only (not including electives or common core)

Degree	Design	Technical	History	Theory	Prof. Pract.	Optional	Total Credits
AAS initial	11	25	5	0	0	3	44
AAS current	14	25	5	0	0	3	44
B. Tech. initial	21	34	8	0	6	6	75
B. Tech. current (Design Intense)	33	31	8	0	3	9	84
B. Tech. current (Tech Intense)	23	41	8	0	3	12	87
B. Arch.	56*	29	10	6	3	12	116

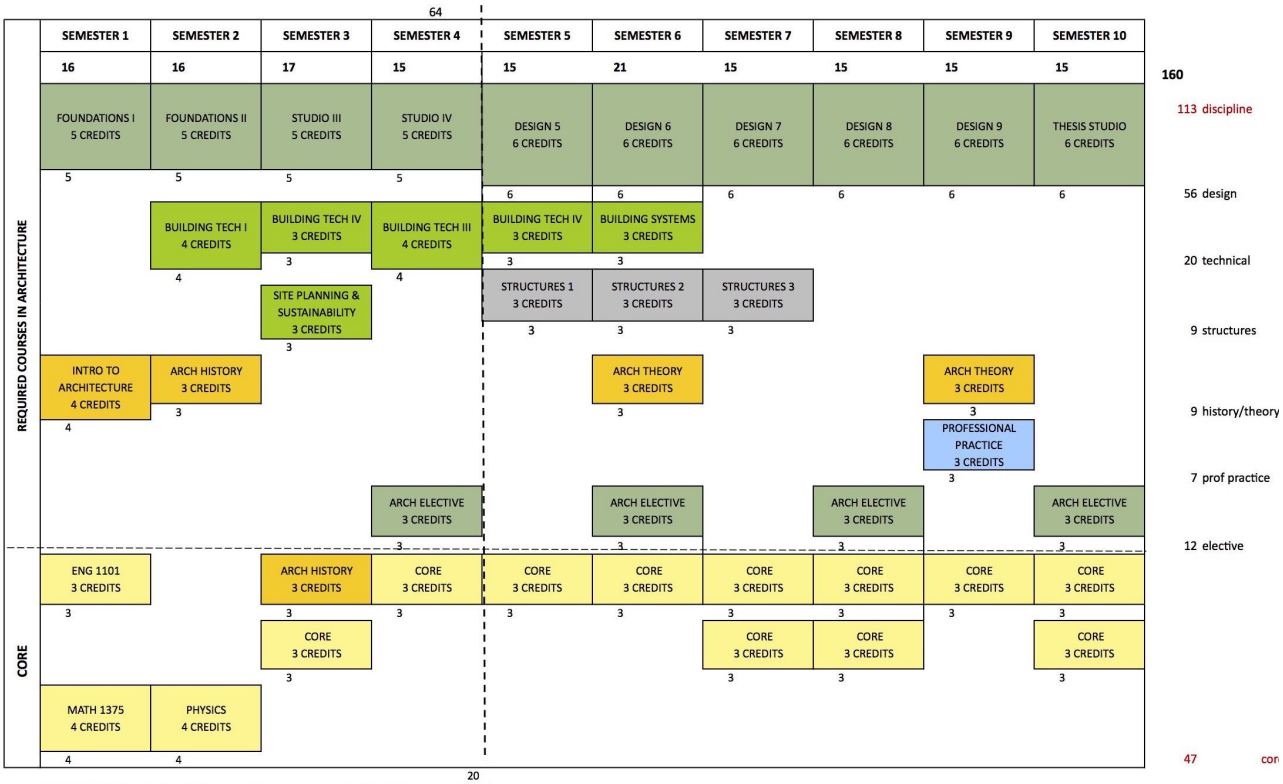
*B. Arch. Design Studios with emphasis on Integrative Design

COURSE OF ACTION: Plan for Implementing New Courses/Curriculum *(Course of Action Item 3.g)*:
The following tables outline the curriculum of the existing B. Tech. and the current B.Arch. proposal.

Bachelor of Technology in Architectural Technology Overview:



Bachelor of Architecture Curriculum Overview:



As we launch the B. Arch. degree, our latest iteration of the B. Tech. degree is a strong foundation to build on. In our assessment of the current curriculum, we identify the need to reinforce the design studio as the core of our students' education. Our B. Arch. curriculum reflects this need, with a significant increase in the allocation of credit hours for the design courses. This allocation allows not only greater emphasis on design and integration of technology, it also provides our commuter students with more interaction with the design faculty as well as their classmates, and a greater degree of guidance on their studio assignments.

The second major need for the B. Arch. curriculum is to develop a coordinated history/theory sequence. This sequence includes a new introductory, place-based course, developed around the theme of *Experiencing Architecture*, that specifically addresses the need to build the prior knowledge and first-hand experience of architecture for our City Tech students.

The third focus of our B. Arch. development is the alignment of our strong building technology sequence with the design sequence to support integrative learning. We are shifting the sequence back, allowing room for first year introductory survey courses that aid the students in developing an understanding of the discipline and their passion for it before embarking on technically focused courses. The first building technology course will leverage New York City as a laboratory for studying how buildings are made, their materiality and performance, and the relationship between structure, material, and tectonics. This course will survey both historical and cutting-edge materials and methods of construction.

Our B. Arch. curriculum also needs to respond to the crucial characteristic of our college's culture: to provide broad opportunity to people in our community through open enrollment. The B. Arch. will respond to this condition as one of three possible degrees for our department's students. All students will start in the AAS program. We are still developing the mechanism for identifying the students eligible for the B. Arch. after completion of the first four semesters. One possibility is that as students complete their fourth semester, they will have the opportunity to apply for a position in the B. Arch. program or to continue in the B. Tech. program. The B. Arch. "gateway" will include an interview, review of each student's' GPA and their portfolio, and letters of recommendation.

The B. Tech. and B. Arch. programs will complement each other, the former working towards a high level of technological and fabrication expertise and the latter preparing graduates for leadership in design, technical proficiency, administration, and management.

We have developed outlines for all of the courses in the B. Arch. program, included below in the supplemental materials section (**Part Three, Section 3.1**). We have completed development of the courses for the first two years of the B. Arch. program as part of our major curriculum modification submission to college council in September.

Each sequence of the B. Arch. will be directed by a faculty team that will steer the sequence, coordinate faculty assignments for each course in the sequence with the appointments committee, and oversee adjustments to course content. The sequence coordination team will also be responsible for assessment of the courses in the sequence and submission of documentation and reports for faculty review and NAAB APR submissions.

Currently our appointments committee is responsible for all faculty teaching assignments. The committee members consult the course coordinators as part of the appointments process. We are exploring enhancing the faculty assignment process to ensure the best match between the faculty member's teaching and discipline expertise with the course content as well as the position of the course in the curriculum and the level of the students.

We have evaluated our existing physical resources and our needs to fully implement the B. Arch. program above. This analysis reveals the need for four new studios (hybrid) as well as a new computer lab. In addition, scholarship on teaching reinforces the need for instructional spaces to allow for multiple modes of teaching and interaction. This requirement impacts space and furniture selection as well as the provision of technology access for students. A college wide report "Reconsidering the Learning Environment", developed

by College Council's Buildings and Grounds Committee, provides guidance on the latest scholarship as well as approaches to facilitating multi-modal teaching spaces, which we will adopt where possible.

II.3 Evaluation of Preparatory Education

To apply for degree admission to New York City College of Technology, applicants must file a formal application prior to the semester in which they plan to register. Application to all campuses of The City University of New York (CUNY) is done electronically through the University Application Processing Center (UAPC). Students are required to select their intended major during the application process as they will be applying directly to a specific curriculum and session (day or evening).

Students file as a freshman if they are: a high school senior; a student who has earned an equivalency diploma or passed the General Educational Development (GED) examination; an applicant to the SEEK program; a foreign applicant whose only previous secondary education has been in the United States and who never attended college; or a student who never attended college.

The college has established a minimum standard for direct admission. Students are evaluated for admission according to a formula that considers the student's preparation in high school English and mathematics, high school grade point average, and College Preparatory Initiative Units. Freshman applicants are responsible for submitting directly to the college their most recent NYS regents, SAT, and ACT scores.

These criteria will remain for all students entering the department of Architectural Technology, irrespective of their eventual degree. The department endeavors to keep the program a robust interaction between students interested in the multifarious aspects of design and building technology and attend courses that fit within their busy work schedules.

Students will apply to the Bachelor of Architecture program during their fourth semester or when completing approximately 60 credits. A committee of architecture faculty will make all evaluations and decisions to admission into the B. Arch. program. The admissions process will consider:

- GPA overall and in architectural studies
- Evaluation of creative thinking, interpretation and expression based on work that demonstrates a student's unique qualities and strengths. This may include creative writing, visual expression videos, fabrication talent, and or digital/computational demonstrations. Rather than limit this review to a traditional portfolio submission, the department endeavors to recognize that the expression of talent, skill, and interest are currently manifested in a large array of digital and physical mediums.
- A personal interview between a faculty member and the candidate - online or in person.
- Two letters of recommendation from instructors or employers.

Applications from transfer students, alumni, or students currently enrolled in the Bachelor of Technology program will involve:

- Official College Transcripts
- College cumulative GPA of B or better (to be confirmed)
- Creative thinking, interpretation and expression evaluation (see above description)
- Portfolio of work:
    - For transfer students it is required only if students are seeking credit for courses completed in another program.
    - For NYCCT students/alumni a portfolio must illustrate academic work and/or projects completed after graduation.
- A personal interview between the faculty member and the candidate - online or in person.
- Two letters of recommendation from former instructors or employers.

II.4 Public Information

The department currently maintains several different online sites to serve a variety of operational functions. These sites are to be linked into a single site which will reflect the multiple levels of activity in the program: professional, academic, social, and institutional. The current college website is being revised to allow for easier updating and control by each department.

II.4.1 Statement on NAAB-Accredited Degrees

All catalog and promotional materials, online and in print, will include the required text as it is worded in Appendix 5 of the *NAAB 2014 Conditions for Accreditation*.

II.4.2 Access to NAAB Conditions and Procedures

These documents will be linked directly to the program website: *NAAB Conditions for Accreditation*, and the *NAAB Procedures for Accreditation* (referencing edition currently in effect). Updates to the most current additions will be made as necessary.

II.4.3 Access to Career Development Information

These resources will be made available to all students, parents, staff and faculty, and linked to the following websites: www.aia.org, www.aias.org, www.acsa-−arch.org, www.NCARB.org, www.ARCHCareers.org, *The NCARB Handbook for Interns and Architects*, *Toward and Evolution of Studio Culture*, and *The Emerging Professional's Companion*.

II.4.4 Public Access to APRs and VTRs

To promote transparency in the process of accreditation in architecture education, the program will make the following documents available to the public:

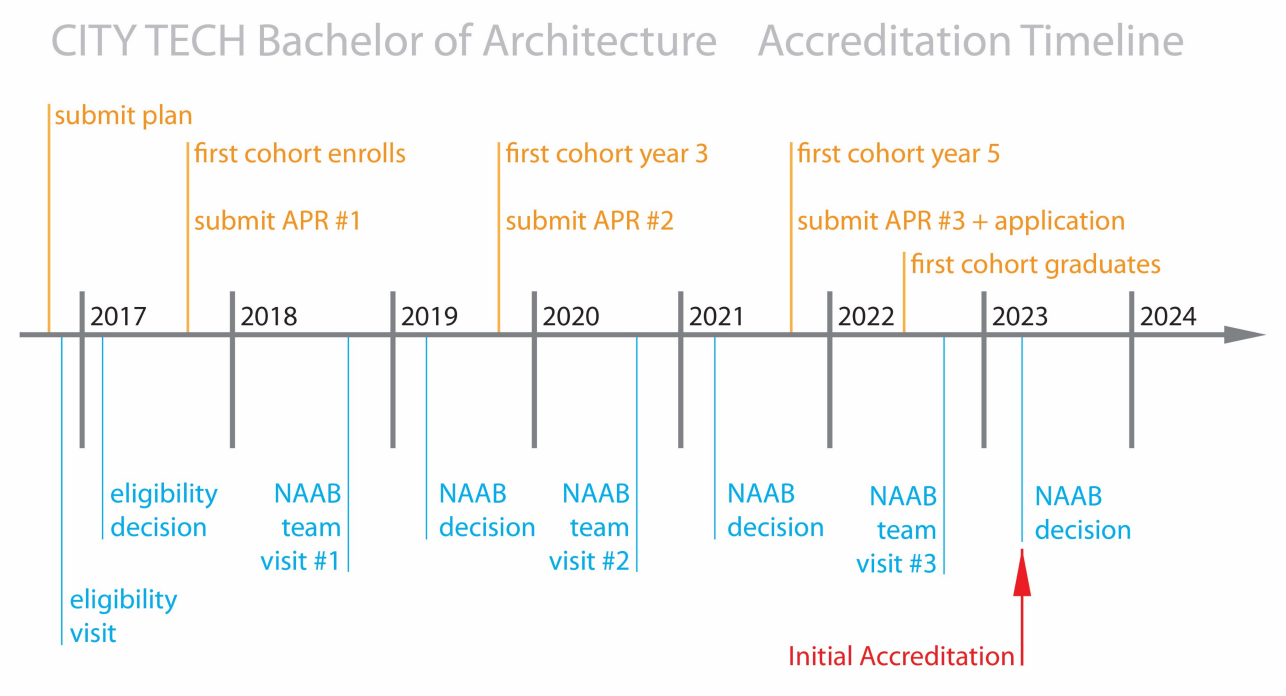
- Annual Reports, including this narrative
- All NAAB responses to the Annual Report
- The final decision letter from the NAAB
- The most recent APR
- The final edition of the most recent Visiting Team Report, including attachments and addenda

These documents will be housed in the School of Technology and Design office and accessible to all. PDF versions will be available for download from the program's website.

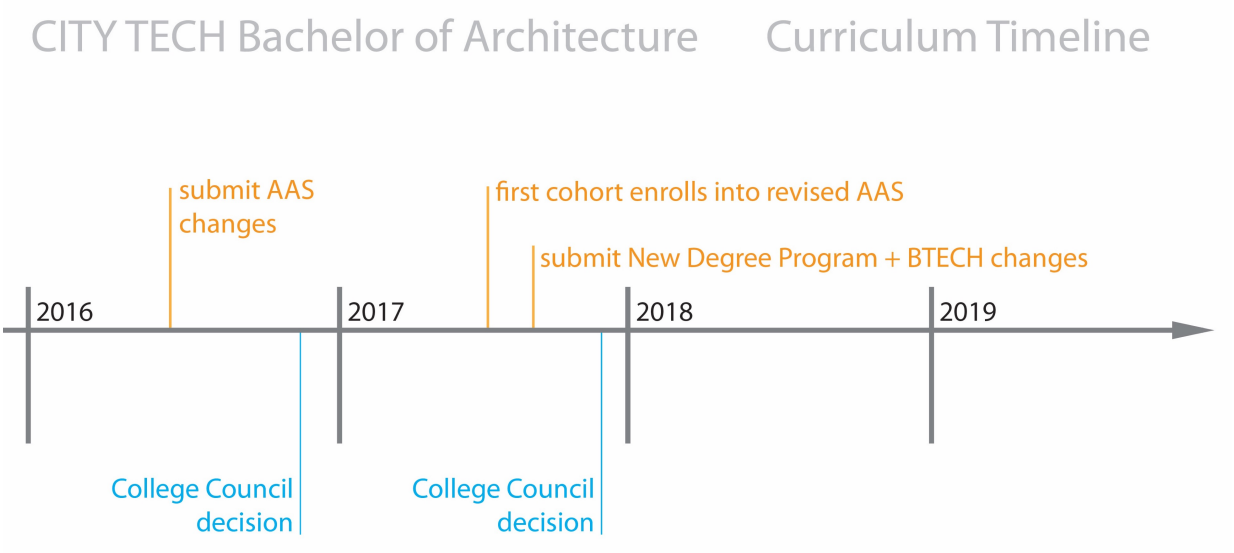
PART TWO

Timeline for Achieving Initial Accreditation

NAAB Process:



College Approval Process:



There are two critical timelines we will be following to achieve initial accreditation within the six year limit:

The first is the NAAB timeline. With the submission of this plan in the fall of 2016, we anticipate confirming our eligibility in early 2017. We intend to enroll the first cohort eligible for the B. Arch. degree in the fall of 2017. This cohort will enter the AAS/B. Tech. degree programs through our on-going open enrollment process. As they embark on their first year, we will finalize and submit the first Architecture Program Report to NAAB in preparation for the candidacy visit in 2018. In the spring semester of our first cohort's second year, students desiring acceptance to our B. Arch. program will submit an application along with a transcript and portfolio. Transfer students will also be eligible to apply as outlined above. The first cohort of students accepted to the B. Arch. program will commence their third year in the fall of 2019, coinciding with our preparation of our second APR as required for our second candidacy visit in 2020. This cohort will reach graduation in the spring of 2022, followed by the final candidacy visit that fall, with the Initial Accreditation decision rendered in early 2023.

COURSE OF ACTION: Securing Institutional Approvals (Course of Action Item 3.b): The second critical timeline is our college timeline for submission and approval of the new degree program and curriculum modifications including new courses and adjustments to existing courses. The first submission will consist of the application for the new degree program and the new courses for the first two years of all of our degree programs, (AAS, B. Tech., and B. Arch.) which will be uniform. The approval of this first submission is anticipated to occur in December 2016, allowing implementation in the fall of 2017. A second submission will be prepared for the fall of 2017. This submission will consist of all remaining curriculum changes for the B. Arch. program, namely the third, fourth, and fifth year courses. The approval of the second submission is anticipated to occur in December 2017, allowing implementation in the fall of 2018, one year ahead of the acceptance of the first B. Arch. cohort into the third year.

Detailed Timeline:

Year	Month	City Tech	NAAB
2016	Oct	Submit: Application and *The Plan for Achieving Initial Accreditation* to NAAB	
		Submit: *Years 1 and 2 Curriculum Modifications* to College Council	
	Nov		Eligibility Visit
	Dec	College Council Approval of *Years 1 and 2 Curriculum Modifications*	

2017	Feb-Mar		NAAB Decision regarding Eligibility Status
	Aug	1st B. Arch. Eligible Cohort Enrolls	
	Sept	Submit: *Architectural Program Report* to NAAB	
		Submit: *New Academic Program Proposal* to College Council *And Years 3, 4, and 5 Curriculum Modifications* to College Council	
	Dec	College Council Approval of *Years 3, 4, and 5 Curriculum Modifications and New Academic Program*	

2018	Fall		**NAAB Team Visit #1:** Candidacy for Initial Accreditation

2019	Spring		NAAB Decision regarding Continued Candidacy for Initial Accreditation
		1st B. Arch. Eligible Cohort Applies for B. Arch. Status	
	Fall	1st B. Arch. Cohort Starts 3rd Year	
		Submit: *Architectural Program Report* to NAAB	

2020	Fall	1st B. Arch. Cohort Starts 4th Year	**NAAB Team Visit #2:** Candidacy for Initial Accreditation

2021	Spring		NAAB Decision regarding Continued Candidacy for Initial Accreditation
	Fall	1st B. Arch. Cohort Starts 5th Year	
		Submit: *Application for Initial Accreditation*	

2022	Spring	1st B. Arch. Cohort Graduates	
	Fall		**NAAB Team Visit #3:** Candidacy for Initial Accreditation

2023	Jan-Feb		NAAB Decision on Initial Accreditation

PART THREE: SUPPLEMENTAL MATERIALS

SECTION 3.1 COURSE DESCRIPTIONS

ARCH 1101 – Introduction to Architecture, 4 credits

Course Description: The study of architecture begins by developing a visual literacy of the built environment. Using New York City as a living laboratory, students explore concepts of design, composition, and construction in the context of the city by sketching and writing about their direct experience of buildings. Accompanying lectures focus on freehand drawing techniques, concepts of composition, writing about buildings and their construction, and reading architectural drawings. As a co-requisite of Design Foundations and a pre-requisite of Building Technology and architecture history, students are exposed to various styles of architecture and methods of construction found in the city. Along with developing graphic skills, students will build the basic foundation to talk, write, and graphically express architecture and its construction.

Course Goals and Objectives:

- To introduce students to methods of understanding how to look at architecture, to analyze what they see, and to develop skills of critical evaluation
- To develop free-hand sketching skills in a variety of media
- To investigate a variety of architectural "styles," their organization, and their materiality by direct experience in the built environment.

NAAB Student Performance Criteria Addressed:
Primary
A.3 Investigative Skills
A.7 History and Global Culture

Topical Outline (percentage of time in course spent in each content area):

Analog Representation Skills (2-D & 3-D):	60%
Critical Evaluation:	20%
Historical/Cultural Understanding:	20%

Pre or Co-requisites: CUNY proficiency in Reading and Writing; or CUNY proficiency in Reading with co requisite of ENG 092W if part of a learning community; or for high school students enrolled through collaborative programs or City Poly High School who have not yet taken the SAT or completed Regents requirements, a PSAT score of 48 or higher in Verbal and/or Writing or successful completion of six units of high school English with an average of 80 or above and a high school recommendation.

Textbooks: Texts will be assigned according to the subject covered that day.

Offered: Fall & Spring; annually

Faculty Assigned:
Michael Duddy (Coordinator) (F/T)

ARCH 1110 – Architectural Design I: Foundations and Visual Studies, 5 credits

Course Description: Architectural Design I is the first course in the one-year foundation sequence which increases the student's ability to perceive visual cues, create visual design, formulate concepts, and render ideas in two or three dimensions. Students will use a combination of hand and digital skills to aid in the creation and interpretation of three dimensional objects and space, and the delineation of the same using standard projection systems.

Course Goals and Objectives:
- Implement an iterative design process from problem identification, information gathering, solution generation and evaluation, implementation, presentation, and overall project evaluation.
- Incorporate design concepts and vocabulary into design process and presentations.
- Distinguish between media and determine the appropriate method and media required to complete a drawing or model.
- Communicate ideas and information both verbally and through writing.
- Develop and apply professional vocabulary.
- Produce both analog and digital orthographic, axonometric, perspective, and architectural vignette drawings.
- Utilize analogue and digital media to create drawings and models.
- Recognize the complexity of the physical world.
- Demonstrate understanding of computer hardware and software as used in architectural practice.
- Demonstrate knowledge of graphic conventions and methods of organization.
- Document analogue materials into digital format and process and edit for presentations and portfolio.
- Create analog and digital 3-D models of medium geometric complexity Manipulate vector and raster files.
- Manipulate vector and raster files.

NAAB Student Performance Criteria Addressed:
A.2 Design Thinking Skills
A.5 Ordering System Skills

Topical Outline (percentage of time in course spent in each content area):

Class Participation and Attendance	10%
Weekly Sketches	10%
Assignments and in-class exercises	70%
Course Portfolio	10%

Pre or Co-requisites: ARCH 1101 Introduction to Architecture

Textbooks:
Hannah, Gail Greet. *Elements of Design: Rowena Reed Kostellow and the Structure of Visual Relationships*.
Elam, Kimberly. *Geometry of Design.*
Durer, Albrecht. *Of the Just Shaping of Letters.*

Offered: Fall and Spring; annually

Faculty Assigned:
Claudia Hernandez (Coordinator) (F/T)

ARCH 1205 – Building Technology I, 4 credits

Course Description: This course presents an introduction to materials of construction and their basic properties, and continues the development of drawing, sketching, and drawing analysis skills introduced in ARCH 1101.

Course Goals and Objectives:
- Acquire tools for lifelong learning – how to learn, how they learn.
- Manipulate and apply geometric, proportional and scale systems.
- Develop and apply a professional vocabulary of architectural terminology.
- Understand and apply professional etiquette to classroom situations.
- Analyze assemblies and details through research and visual observation.
- Sketch and draft details in orthographic and 3 dimensional views in analogue and digital media.
- Recall and recite the key terms, properties, and fabrication techniques of the materials reviewed in the lectures and readings.
- Carefully Observe, Survey, and Document Existing Conditions

NAAB Student Performance Criteria Addressed:
A.3 Investigative Skills
B.8 Building Materials and Assemblies

Topical Outline (percentage of time in course spent in each content area):

Studio Lab Assignments:	50%
Sketchbook Assignments:	20%
Drawing Analysis:	15%
Textbook/Reading Notes:	10%
Presentations:	5%

Pre or Co-requisites: ARCH 1101 Introduction to Architecture, MAT 1275 College Algebra and Trigonometry

Textbooks:
Ching, Francis. *Building Construction Illustrated.* John Wiley and Sons, 2008.
Roth, Leland M., Amanda Roth Clark, *Understanding Architecture: Its Elements, History, and Meaning.* Westview Press, *3rd* Ed., 2014.

Offered: Fall & Spring; annually

Faculty Assigned:
Jason Montgomery (Coordinator) (F/T)

ARCH 1210 – Architectural Design II: Foundations and Visual Studies, 5 credits

Course Description: Design Foundations II is the second course in the one-year foundation sequence which increases the student's ability to perceive visual cues, create visual design, formulate concepts, and render ideas in two- and three dimensions. Students will use a combination of hand and digital skills to aid in the creation and interpretation of three-dimensional constructs and space and the delineation of the same using standard projection systems. The Visual Studies component of the course builds on the knowledge of architectural representation and visualization obtained in Foundations I and Visual Studies I. The course provides training in design tools that will strengthen visual, verbal, and graphic aspects of design and representation skills and will continue to build design and representation techniques and workflows that will prepare them for future coursework and professional practice.

Course Goals and Objectives:
- Implement an iterative design process from problem identification, information gathering, solution generation and evaluation, implementation, presentation, and overall project evaluation.
- Incorporate design concepts and vocabulary into design process and presentations.
- Distinguish between media and determine the appropriate method and media required to complete a drawing or model.
- Communicate ideas and information both verbally and through writing.
- Develop and apply professional vocabulary.
- Produce orthographic, axonometric, perspective, and architectural vignette drawings both hand drawn and digitally.
- Demonstrate knowledge of graphic conventions and methods.
- Utilize analogue and digital media to create drawings and models.
- Incorporate color and materials into designs and presentations.
- Represent human scale and proportion in design drawings.
- Demonstrate understanding of computer hardware and software methods and standards as used in architectural practice.

NAAB Student Performance Criteria Addressed:
A.1 Professional Communication Skills
A.5 Ordering System Skills

Topical Outline (percentage of time in course spent in each content area):

Project 01	20%
Project 02	30%
Project 03	30%
Participation and Attendance	10%
Process Book	5%
Sketch Assignments	5%

Prerequisites: ARCH 1110 Architectural Design I: Foundations and Visual Studies

Textbooks:
Ching, Francis. *Architecture-Form, Space, & Order*. John Wiley and Sons, 2007.

Offered: Fall & Spring; annually

Faculty Assigned: Esteban Beita Solano (Coordinator) (F/T)

ARCH 1221 – History of World Architecture to 1900, 3 credits

Course Description: This historical survey of architecture covers the period from early civilizations to the arrival of the Industrial Revolution. Architecture is understood as an expression of the culture and life of a society, and each session considers architectures from around the world within their social, temporal, and spatial contexts. While the history of Western architecture is covered from the Egyptian to the Enlightenment, a special focus is directed to the architectures of the Far East, South Asia, Africa, pre-Columbian Latin America, the Islamic World, and elsewhere to provide a comprehensive overview of the richness and diversity of architecture as a cultural artifact.

Course Goals and Objectives:
- To provide the foundation for understanding the evolution of architecture within individual societies
- To understand the connection between social, philosophical, political, and religious contexts and architectural expression

NAAB Student Performance Criteria Addressed:
A.7 History and Global Culture
A.8 Cultural Diversity and Social Equity

Topical Outline (percentage of time in course spent in each content area):

Reading and Writing Skills:	60%
Critical Evaluation:	10%
Historical/Cultural Understanding:	20%
Verbal Presentation Skills:	10%

Pre or Co-requisites: ARCH 1101 Introduction to Architecture

Textbooks:
Roth, Leland M., Amanda Roth Clark, *Understanding Architecture: Its Elements, History, and Meaning.* Westview Press, *3rd* Ed., 2014.

Offered: Fall & Spring; annually

Faculty Assigned:
Michael Duddy (Coordinator) (F/T)

ARCH 2305 – Building Technology II: Wood, 3 credits

Course Description: This course will continue the study materials of construction as well as the theory and practice of building technology. The course will include investigation of the assembly of building components and methods of construction while developing proficiency in both analog and digital drawing and building modeling techniques.

Course Goals and Objectives:
- Understand the relationship of technology to tectonics and architectural character.
- Recall & recite the key terms and characteristics of the materials reviewed in the lectures & readings.
- Develop and apply a professional vocabulary of architectural terminology.
- Understand professional ethics and code of conduct and apply professional etiquette to classroom situations.
- Develop analog and digital models of structural systems.
- Analyze structure, assemblies, and details; demonstrate an understanding of fundamental construction types both by detailed research and visual observation.
- Develop a coordinated drawing set for the given building design(s) including plan diagrams, sections, & details of wood structures that illustrates and identifies the materials & construction types.

NAAB Student Performance Criteria Addressed:
B.5 Structural Systems
D.5 Professional Conduct

Topical Outline (percentage of time in course spent in each content area):

Studio Lab Assignments:	65%
Quizzes:	10%
Final Exam:	20%
Class Participation:	5%

Pre or Co-requisites: ARCH 1205 Building Technology I

Textbooks:
Allen, Edward. *Fundamentals of Building Construction: Materials and Methods,*John Wiley & Sons, 2014.
Ching, Francis. *Building Construction Illustrated*. John Wiley and Sons, 2008.

Offered: Fall & Spring; annually

Faculty Assigned:
Alexander Aptekar (Coordinator) (F/T)

ARCH 2310 – Studio III, 5 credits

Course Description: This course is an exploration of abstract architectural design theory in the expression of three-dimensional space. Students will design a small wood-frame building incorporating a building program and elements of site, enclosure, structure, materials, and technology. The structural design of their projects will be analyzed and developed in coordination with the building technology sequence. Design concepts and vocabulary are introduced and strengthened through design projects.

Course Goals and Objectives:
- Understand the impact horizontal and vertical circulations have on the perception of architectural space and apply it to design.
- Demonstrate an ability to design based on a concept.
- Develop parti concepts and diagrams into schematic level drawings.
- Understand the difference between solid and void and positive and negative spaces and apply it in 2D and 3D designs.
- Distinguish between media and determine the appropriate method and media required to complete a drawing or model.
- Communicate ideas and information both verbally and through writing.
- Research and practice information literacy skills by researching precedents.
- Apply quantitative analysis to design.
- Produce orthographic, axonometric, perspective, and architectural vignette drawings.
- Utilize analogue and digital media to create drawings and models.
- Synthesize site circulation, zoning, urban context, and views to design.
- Synthesize construction types, hierarchy, and light to building design.

NAAB Student Performance Criteria Addressed:
A.2 Design Thinking Skills
A.6 Use of Precedents

Topical Outline (percentage of time in course spent in each content area):

Precedent Study:	25%
Design Investigation and Solution:	60%
Presentation Skills:	15%

Pre or Co-requisites: ARCH 1210 Architectural Design II: Foundations and Visual Studies, ARCH 1205 Building Technology I

Textbooks:
Ching, Francis. *Architecture-Form, Space, & Order*. John Wiley and Sons, 2007.

Offered: Fall & spring; annually

Faculty Assigned:
Ting Chin (Coordinator) (F/T)

ARCH 2321 – History of Architecture: 1900 - Present, 3 credits

Course Description: A comprehensive study of modern architectural movements from the 1900's to present day. Architects and their buildings will be explored in relationship to their cultural, artistic, philosophical, historical and technological contexts.

Course Goals and Objectives:
- To present a concise overview of architectural production since the Industrial Revolution
- To understand the connection between social, philosophical, political, and religious contexts and architectural expressions of modernity
- To understand how technological and cultural developments passed between cultures and societies in the modern world.

NAAB Student Performance Criteria Addressed:
A.7 History and Global Culture
A.8 Cultural Diversity and Social Equity

Topical Outline (percentage of time in course spent in each content area):

Reading and Writing Skills:	60%
Critical Evaluation:	10%
Historical/Cultural Understanding:	20%
Verbal Presentation Skills:	10%

Prerequisites: ARCH 1221 History of World Architecture to 1900

Textbook: Texts will be assigned according to the subject covered that day.

Offered: Fall & Spring; annually

Faculty Assigned:
Michael Duddy (Coordinator) (F/T)

ARCH 2350 – Site Planning and Sustainability

Course Description: Introduction to the fundamentals of site planning principles and the use of topographic maps and models. This course will explore the importance of site development as it relates to the practice of architecture and sustainable and resilient site development. Graphic and model presentation skills are required.

Course Goals and Objectives:
- Explain the different factors to be considered to produce a field study for a given site.
- Grade a site using cut and fill to alter existing contours.
- Apply zoning concepts and restrictions including OSR and FAR.
- Understand how climate, topography, hydrology, geology and views affect site and building design.
- Effectively integrate site planning into the architectural design process.
- Explain how access to the sun and daylight influences site planning and the building envelope.
- Understand how the fundamentals of ecological design are applied to building sites and create integrated opportunities between buildings and site.
- Define and compare rating systems for evaluating sustainable planning.

NAAB Student Performance Criteria Addressed:
B.2 Site Design
B.6 Environmental Systems

Topical Outline (percentage of time in course spent in each content area):
Homework: 30%
Quizzes: 30%
Team Project: 40%

Prerequisites: ARCH 1205 Building Technology I, ARCH 1210 Architectural Design II

Textbook:
James A. Lagro, *Site Analysis: Linking Program and Concept in Land Planning and Design*, John Wiley and Sons, 2001.

Offered: Fall & Spring; annually

Faculty Assigned:
Paul King (Coordinator) (F/T)

ARCH 2405 – Building Technology III: Steel, 4 credits

Course Description: This course studies the development of building systems as they occur during the design development phase of architecture. Using case study research methods, students analyze factors, such as building assemblies and systems, codes and government regulations, human ergonomics, and sustainability that affect building construction and use. Their solutions to these issues are integrated into their final building design solutions. The student creates a series of reports and a set of construction drawings using both analog methods (hand sketching and drawing) and digital tools including traditional CAD software and Building Information Modeling techniques.

Course Goals and Objectives:

- Understand the process and requirements of developing a design from a schematic concept into design development drawings.
- Execute work through a collaborative process.
- Generate clear and concise talking points to guide oral presentations of lab assignments.
- Understand the advantages and limitations of BIM (building information modeling) as a tool for design development and project delivery.
- Apply knowledge of materials and methods of construction, including sustainable principles, to the development of details and assemblies.
- Sketch and draft details in orthographic and 3-D views in analogue and digital media.
- Design and analyze exterior wall system based on environmental performance.
- Apply knowledge of professional construction drawing standards for page composition, title blocks, annotation, and schedules.
- Develop a professional quality coordinated, edited, and organized set of design development documents for a given building design using BIM and CAD.

NAAB Student Performance Criteria Addressed:

B.4 Technical Documentation
D.1 Stakeholder Roles in Architecture

Topical Outline (percentage of time in course spent in each content area):

Comprehensive Drawing Set:	60%
Team Case Studies:	20%
Studio Lab Assignments:	15%
Class Participation:	5%

Prerequisites: ARCH 2305 Building Technology II

Textbook:

Allen, Edward. *Fundamentals of Building Construction: Materials and Methods,* John Wiley & Sons, 2014.
Ching, Francis. *Building Construction Illustrated*. John Wiley and Sons, 2008.

Offered: Fall & Spring; annually

Faculty Assigned:

Paul King (Coordinator) (F/T)

ARCH 2410 – Studio IV, 5 credits

Course Description: This studio is a continuation of Studio III emphasizing concept development throughout the design process to a final spatial experience. Research and analysis, program development, flow diagrams and massing studies will be used to further develop the student's concepts into their final projects. A juried presentation will take place at the completion of each project. Students will design a medium size steel frame building that integrates program, form and structure. The structural design of their projects will be analyzed and developed in coordination with the building technology sequence.

Course Goals & Objectives:
- Understand the differences between building systems and apply them to design.
- Diagram the important characteristics of a building and apply it to the design.
- Develop parti concepts and diagrams into design document level drawings.
- Distinguish between media and determine the appropriate method and media required to complete a drawing or model.
- Communicate ideas and information both verbally and through writing.
- Research precedents and implement information literacy.
- Apply quantitative analysis to design.
- Collaborate on group projects.
- Produce orthographic, axonometric, perspective, and architectural vignette drawings.
- Synthesize site circulation, zoning, urban context, and views to design.
- Synthesize construction types, circulation systems, hierarchy, and light to building design.
- Apply sustainable principles to development design and construction documents.

NAAB Student Performance Criteria Addressed:
A.2 Design Thinking Skills
A.4 Architectural Design Skills

Topical Outline (percentage of time in course spent in each content area):

Research papers:	15%
Attendance and participation:	10%
Project 1:	20%
Project 2 :	25%
Project 3	30%

Prerequisites: ARCH 2310 Studio III, ARCH 2305 Building Technology II, ARCH 2350 Site Planning and Sustainability

Textbooks:
Ching, Francis. *Architecture-Form, Space, & Order*. John Wiley and Sons, 2007.

Offered: Fall & Spring; annually

Faculty Assigned:
Agustin Maldonado (Coordinator) (F/T)

ARCH 3510 – Studio V, 6 credits

Course Description: A continuation of Studio IV students in this course will design a medium-scale concrete building on a site in New York City. Local zoning and building codes will be introduced and implemented in student's projects. Current issues related to the urban environment will be addressed. The structural design of their projects will be analyzed and developed in coordination with the building technology sequence.

Course Goals and Objectives:
- To develop an architectural program and design solution that responds to current and local issues
- To introduce and investigate how materials can be assembled to create space
- To investigate how structural issues impact form and construction
- To develop a basic understanding of local zoning regulations and building codes

NAAB Student Performance Criteria Addressed:
A.4 Architectural Design Skills
B.3 Codes and Regulations

Topical Outline (percentage of time in course spent in each content area):
Design Investigation and Solution: 60%
Understanding of Zoning and Codes: 20%
Research: 10%
Presentation Skills: 10%

Prerequisites: ARCH 2410 Studio IV, ARCH 2405 Building Technology III

Textbooks: TBD

Offered: Fall & Spring; annually

Faculty Assigned:
Lia Dikigoropoulou (Coordinator) (F/T)

ARCH 3505– Building Technology IV: Concrete, 3 credits

Course Description: An introduction to concrete and its application in structural and envelope systems. This course will involve the analysis of large scale concrete structures coordinating with the design studio sequence.

Course Goals and Objectives:
- To explore material properties and methods of assembly
- To develop free-hand drawing skills in a variety of media
- To document structure and assemblies in 2d and 3d drawings and models.

NAAB Student Performance Criteria Addressed:
B.4 Technical Documentation
D.2 Project Management

Topical Outline (percentage of time in course spent in each content area):

Analog Representation Skills (2-D & 3-D):	20%
Digital Representation Skills (2-D & 3-D):	40%
Critical Evaluation:	20%
Research + Lab Investigations:	20%

Prerequisites: ARCH 2405 Building Technology III

Textbook:
Ching, Francis. *Building Construction Illustrated.* John Wiley and Sons, 2008.

Offered: Fall & Spring; annually

Faculty Assigned:
Paul King (Coordinator) (F/T)

ARCH 3580 – Structures I: Statics and Strength of Materials, 3 credits

Course Description: An introduction to the fundamental science and mechanics behind architectural structures. This course will involve the study of the statics, strength of materials and associated geometric and material properties.

Course Goals and Objectives:
- To understand the fundamental science and mathematics underlying building structures.
- To calculate geometric, material and physical properties of structural components.
- To understand how to analyze a basic structural component.

NAAB Student Performance Criteria Addressed:
B.5 Structural Systems
B.8. Building Materials and Assemblies

Topical Outline (percentage of time in course spent in each content area):
Architectural Statics: 30%
Strength of Materials: 40%
Structural Components: 30%

Prerequisites: MATH 1375 Mathematics, PHYS 1433/1441 Physics

Textbook:
Ambrose, J and Tripeny, P. *Simplified Engineering for Architects and Builders.* John Wiley and Sons, 2010.

Offered: Fall & Spring; annually

Faculty Assigned:
Phillip Anzalone AIA (Coordinator) (F/T), Barbara Mishara (F/T), Ashwani Bedi PE (P/T)

ARCH 3610 – Studio VI, 6 credits

Course Description: A continuation of Studio V students in this course will design a comprehensive architectural project that demonstrates an understanding of materials, structural and building systems, principles of sustainability, building envelope assemblies, and life-safety provisions. Projects will be analyzed and developed in coordination with the building systems course.

Course Goals and Objectives:

- To demonstrate an understanding of the relationship between all of the various systems involved in the assembly and design of buildings.
- To design solutions that respond to their environmental contexts.

NAAB Student Performance Criteria Addressed:

C.2 Integrated Evaluations & Decision Making Design Process
C.3 Integrative Design

Topical Outline (percentage of time in course spent in each content area):

Integrated Design and Implementation:	60%
Code Analysis:	10%
Site Analysis:	10%
Program Analysis:	10%
Development of Building Assembly:	10%

Prerequisites: ARCH 3510 Studio V, ARCH 3505 Building Technology IV

Textbook: TBD

Offered: Fall & Spring; annually

Faculty Assigned:

Jill Bouratoglou (Coordinator) (F/T)

ARCH 3605 – Building Systems, 3 credits

Course Description:A survey of systems employed in buildings including plumbing, electrical, heating, ventilation, air conditioning and fire alarm and suppression. System components, design, application, equipment locations and distribution will be examined. Sustainability and energy efficiency applications will be addressed and digital software used for data analysis.

Course Goals and Objectives:
- Understand different building environmental control systems to a building.
- Communicate ideas and information both verbally and through writing.
- Develop and apply professional vocabulary.
- Research and practice information literacy skills by researching precedents.
- Apply quantitative analysis to design.
- Prepare simple riser diagrams for plumbing supply and waste systems.
- Select appropriate general and emergency lighting for buildings.
- Select appropriate heating, cooling and ventilation systems for buildings.
- Select appropriate fire suppression systems for buildings.
- Compute heat loss and heat gain for specific construction systems.

NAAB Student Performance Criteria Addressed:
B.9 Building Service Systems
B.10 Financial Considerations

Topical Outline (percentage of time in course spent in each content area):

Final Exam:	40%
Midterm Exam:	20%
Quizzes:	30%
Notebook:	5%
Participation:	5%

Prerequisites: ARCH 3505 Building Technology IV

Textbook:
Shiler, Marc. *Lester Wertheimer.Building Systems*. Kaplan AE Education, 2010.

Offered: Fall & Spring; annually

Faculty Assigned:
Wendell Edwards (Coordinator) (F/T)

ARCH 3680 – Structures II: Wood, Steel and Concrete, 3 credits

Course Description: An introduction to wood, steel and concrete and its application in structural and envelope systems. This course will involve the analysis of medium scale steel structures coordinating with the design studio sequence.

Course Goals and Objectives:
- To determine the load on a building structure.
- To understand building code related to environmental loads and structural design.
- To design an appropriate structural component in the fundamental architectural materials.

NAAB Student Performance Criteria Addressed:
B.4 Technical Documentation
B.5 Structural Systems

Topical Outline (percentage of time in course spent in each content area):
Building Loads: 20%
Wood Structures: 30%
Steel Structures: 30%
Concrete Structures: 20%

Prerequisites: ARCH 3580 Structures I

Textbook:
Ambrose, J and Tripeny, P. *Simplified Engineering for Architects and Builders.* John Wiley and Sons, 2010.

Offered: Fall & Spring; annually

Faculty Assigned:
Phillip Anzalone AIA (Coordinator) (F/T), Barbara Mishara (F/T), Ashwani Bedi PE (P/T)

ARCH 3621 – Theory I : Principles and Theories of Architecture (3 credits)

Course Description: Beyond providing mere shelter for human activity, architecture throughout history has played a fundamental role in expressing the highest forms of human intelligence and aspiration. This survey of architectural thought begins by asking what architectural theory is, and why it is essential to the understanding and making of architecture. Beginning with an examination of the ancient writer Vitruvius, the course explores key periods of architectural thought concluding with contemporary theory circulating today.

Course Goals and Objectives:
- Students will demonstrate proficiency in reading and understanding primary and secondary architectural texts.
- Students will demonstrate critical thinking by comparing and cross referencing theoretical ideas across multiple texts.
- Students will demonstrate understanding of architectural theories and principles by exchanging ideas about architecture with their classmates.
- Students will demonstrate the ability to present an organized oral and graphic presentation.

NAAB Student Performance Criteria Addressed:
A.1. Professional Communication Skills
A.2. Design Thinking Skills

Topical Outline (percentage of time in course spent in each content area):
Analytic Writing Skills: 60%
Presentation Skills: 20%
Class Participation: 20%

Prerequisites: ARCH 2321 History of Architecture: 1900 - Present

Textbooks:
Readings are assigned during the semester.

Offered:
Fall and Spring; annually

Faculty Assigned:
Michael Duddy (Coordinator) (F/T)

ARCH 4710 – Studio VII, 6 credits

Course Description: A continuation of Studio VI students in this course will design a large-scale cultural facility. The project will emphasize building assembly and performance. Students will analyze climate conditions to develop an architectural program and site specific response to prescribed requirements. Students will investigate possibilities for exterior envelope assemblies and materials selection and how these choices affect building performance. Projects will be analyzed and developed in coordination with the structures course..

Course Goals and Objectives:
- To develop design solutions that respond to their environmental contexts.
- To critically assess programmatic needs and translate these into built form.
- To develop understanding of building assemblies and the impact of details on designs

NAAB Student Performance Criteria Addressed:
B.6. Environmental Systems
B.7 Building Envelope Systems and Assemblies

Topical Outline (percentage of time in course spent in each content area):

Design Investigation and Solution:	50%
Research and integration of building envelope and material assemblies:	20%
Analysis of building performance:	20%
Site Design:	10%

Prerequisites: ARCH 3610 Studio VI, ARCH 3605 Building Systems

Textbook: TBD

Offered: Fall & Spring; annually

Faculty Assigned:
Agustin Maldonado (Coordinator) (F/T)

ARCH 4780 – Structures III: Structural Components and Systems, 3 credits

Course Description:A systems integrated course involving the design of building components, connections and systems in relation to an architectural design. Course will culminate in a design project for an architectural structure.

Course Goals and Objectives:
- To understand the integration of structural systems in building design
- To learn how to develop structural framing drawings

NAAB Student Performance Criteria Addressed:
B.4 Technical Documentation
B.5 Structural Systems

Topical Outline (percentage of time in course spent in each content area):
Structural Systems: 40%
Systems Integration: 40%
Research and Representation: 20%

Prerequisites: ARCH 3680 Structures II

Textbook:
Ambrose, J and Tripeny, P. *Simplified Engineering for Architects and Builders.* John Wiley and Sons, 2010.

Offered: Fall & Spring; annually

Faculty Assigned:
Phillip Anzalone AIA (Coordinator)

ARCH 4810 - Studio VIII, 6 credits

Course Description: A continuation of Studio VII students in this course will design a large-scale facility with an emphasis on sustainability and site design. Students will analyze local climate conditions to develop building and site design solutions that incorporate appropriate sustainable design features.

Course Goals and Objectives:
- To document and analyze climate conditions that are specific to a site or location
- To study and analyze possible sustainable design features and their impact on the overall design
- To investigate ways to optimize and conserve natural resources
- To design spaces that meet or exceed accessibility and basic life safety standards

NAAB Student Performance Criteria Addressed:
B.2 Site Design
B.6 Environmental Systems

Topical Outline (percentage of time in course spent in each content area):

Design Investigation and Solution:	50%
Research and integration of sustainable design features:	20%
Site Design:	20%
Presentation Skills:	10%

Prerequisites: ARCH 4710 Studio VII

Textbooks: TBD

Offered: Fall & Spring; annually

Faculty Assigned:
Illya Azaroff (Coordinator) (F/T)

ARCH 5910 – Studio IX, 6 credits

Course Description: A continuation of Studio VIII students in this course will develop a program and master plan for a mixed-used development on a large-scale urban site based on a comprehensive analysis of the surrounding area and current social, cultural and economic forces.

Course Goals and Objectives:
- To develop an understanding of the multitude of forces that impact the built urban environment.
- To develop a design strategy that responds to both the immediate users and the larger urban context.
- To work collaboratively with peers.

NAAB Student Performance Criteria Addressed:
B.1 Pre Design
B.2 Site Design

Topical Outline (percentage of time in course spent in each content area):
Urban Analysis: 30%
Comprehensive Design and Implementation: 70%

Prerequisites: ARCH 4810 Studio VIII

Textbook: TBD

Offered: Fall & Spring; annually

Faculty Assigned:
Jason Montgomery (Coordinator) (F/T)

ARCH 5921 – Theory II: Form and Space in Architecture, 3 credits

Course Description: Since the time of Vitruvius, architects have employed formal principles to systematize the design of their buildings. Through extensive reading, research, writing, and analytic diagramming, students focus on the "close reading" of canonical buildings from Greece and Rome to contemporary practitioners as Sterling and Hadid to reveal the formal systems of architecture and their relationships to the cultures in which they were produced.

Course Goals and Objectives:
- To develop methods of understanding how to uncover formal systems of design, to analyze how composite formal systems are resolved., and to develop skills of critical evaluation.
- To develop rigorous diagramming skills as a design tool.
- To compare an architect's written intention and its presentation in the built work.
- To demonstrate the ability to articulate graphically and in writing an understanding of complex formal systems and their tectonic resolution.

NAAB Student Performance Criteria Addressed:
A.5 Ordering Systems
A.6 Use of Precedents

Topical Outline (percentage of time in course spent in each content area):

Diagramming Skills:	40%
Writing Skills:	30%
Critical Evaluation:	10%
Historical/Cultural Understanding:	10%
Verbal Presentation Skills:	10%

Prerequisites: ARCH 3621 Theory I

Readings:
Peter Eisenman, *Ten Canonical Buildings* (Selections)
Peter Eisenman, *Diagram Diaries* (Selections)
Kenneth Frampton, *Studies in Tectonic Culture*

Offered: Fall & Spring; annually

Faculty Assigned:
Michael Duddy (Coordinator) (F/T)

ARCH 5961 – Professional Practice, 3 credits

Course Description: This course will introduce students to the ethics, legal responsibilities, roles of stakeholders, and business standards required to engage in the practice of architecture.

Course Goals and Objectives:
- To gain a general understanding of ethical and legal responsibilities of engaging in the practice of architecture.
- To develop an understanding of the stakeholders involved in a building project.

NAAB Student Performance Criteria Addressed:
D.3 Business Practices
D.4 Legal Responsibilities

Topical Outline (percentage of time in course spent in each content area):

Assignments:	50%
Quizzes:	40%
Verbal Presentation Skills:	10%

Prerequisites: ARCH 3605 Building Systems

Readings: TBD

Offered: Fall & Spring; annually

Faculty Assigned:
Barbara Mishara (Coordinator) (F/T)

ARCH 6010 – Studio X, 6 credits

Course Description: This course is the capstone course for the professional degree. Students pursue an architectural design topic of their interest in which they develop a conceptual, technical or theoretical premise and rigorously test it through the design of a project of their choosing.

Course Goals and Objectives:
- To identify and investigate relevant precedent studies
- To demonstrate critical thinking and apply it to design as a means of investigation and research.
- To verbally and graphically communicate their premise, design process and solution effectively.

NAAB Student Performance Criteria Addressed
A.3 Investigative Skills
C.1 Research

Topical Outline (percentage of time in course spent in each content area):

Precedents and Research:	20%
Pre-design:	20%
Design Investigation and Implementation:	50%
Design Communication:	10%

Prerequisites: ARCH 5910 Studio IX

Textbook: TBD

Offered: Fall & Spring; annually

Faculty Assigned:
Shelley Smith (F/T)

PART THREE: SUPPLEMENTAL MATERIALS

SECTION 3.2 FACULTY RESUMES

Name: Phillip Anzalone

Courses Taught
Design 5, Structures 2, Advanced Materials Workshop & Building Technologies 4, Fall 2014 / Spring 2015
Structures 1 & Structures 2, Fall 2015
Design 8 & Structures 1, Spring 2016
Advanced Construction Technology 8 & Design 8, Fall 2016

Educational Credentials
Master of Architecture, *Columbia University Graduate School of Architecture;* 1997
Bachelors of Professional Studies in Architecture (magna cum laude), *SUNY at Buffalo;* 1994
Engineering Major, *University of Nevada at Las Vegas School of Engineering;* Attended 1989 – 1992

Teaching Experience
Asst Professor of Architectural Technology, *New York City College of Technology, CUNY;* 2014 - present
Director, Building Science & Technology Sequence, *Columbia University GSAPP;* 2007 – 2014
Founding Director, Laboratory for Applied Building Science, *Columbia University GSAPP;* 2005 – 2014
Adjunct Assistant Professor of Architecture, *Columbia University GSAPP;* 2005 - 2014
Visiting Professor & Tech Sequence Coordinator, *Pratt Institute Graduate School;* 2002 – 2008

Professional Experience
Principal, *Atelier Architecture 64, Brooklyn, New York;* 2005 – present
Building Envelope Consultant, *R. A Heintges & Associates, New York, New York;* 2001 – 2005
Design Lead and Construction Manager, *Greg Lynn Form, Cincinnati, Ohio;* 1996 – 2000

Licenses/Registration
Registered Architect in New York State; 2007 – present
Registered Special Inspector (structure and construction) in New York City; 2012 – present

Selected Publications
“Designed Disorder”, Performative Materials in Architecture and Design, S. Patel and R. Ng (eds); 2013
“Detailing Articulation” in Matter, G. Borden & M. Meredith (eds); 2011
“Digital Tea Houses” in Domus; October 2010
“Framing Space” in ACSA 98th Annual National Meeting Proceedings; 2010

Recent Research
RDAT: Rapidly Deployed and Assembled Tesnsegrity Structural System
SmartJobsite: Automated Construction; with Turner Construction, IBM and MIT
Building Intelligence Think Tanks; with Old Castle Building Envelope
eXcursions; cultural production and digital fabrication in student installations

Recent Exhibitions
“Urban SOS” Multimedia Installation, AIA-NY Center for Architecture; 2014 with AECOM
“Going Away” Art + Architecture Installation, Palais de Tokyo, Paris, France; 2013 with Tomas Saraceno
“X-Total” Deployable Urban Furniture, Rio de Janeiro, Brazil; 2013 with StudioX Rio
“Bling Wall” Auditorium Acoustical Installation, New York, NY; 2011 with SHoP Architects

Professional Memberships
Member of American Institute of Architects in good standing; 2009 – present
Member of Board of Directors of the New York State American Institute of Architects; 2014 – 2016
New York State Regional Director of the AIA National Young Architects Forum; 2014 - 2016
Member of Board of Directors of the Association for Computer Aided Design in Architecture; 2014 - 2016

Name: Alexander Aptekar

Courses Taught
Building Technology IV [ARCH 2430], Advanced Detailing Studio [ARCH 3630], Fall 2014
Advanced Detailing Studio [ARCH 3630], Construction Technology: Special Topics [ARCH 4830], Spring 2015 Advanced Detailing Studio [ARCH 3630], Fall 2015
N/A [Research and Curriculum development], Spring 2016

Educational Credentials
Masters of Architecture, *Yale School of Architecture, New Haven, CT,* 1996
Bachelor of Arts, Fine Arts and Political Science, *Oberlin College, Ohio,* 1992

Teaching Experience
École Nationale Supérieure d'Architecture de Paris - Val de Seine (summer internships)
Parsons School of Design, Fashion Institute of Technology Pratt Institute,
Guest Critic, *City College of New York, Yale School of Architecture*

Professional Experience
Partner, *Maadluxe Design*
Project Manager, *Rockwell Group*
Project Manager, *Arquitectonica*
Project Architect, *Kohn Pedersen Fox Associates*

Licenses/Registration
Registered Architect in the State of New York
LEED Accredited Professional (LEED AP BD+C)

Selected Publications and Recent Research
Lead PI (Project Investigator) for the“NY City Tech” research team for the US Department of Energy's Solar Decathlon 2015 in Irvine, CA (http://www.solardecathlon.gov/2015/competition-team-ny-city-tech.html)
Alexander Aptekar, Arpan Bakshi, Zach Downey, Anne Leonhardt, Brian Ringley, Sanjive Vaidya “Closing the Loop - Completing the Design/Analysis > Fabrication > Validation Cycle. The Impact of Digital Collaboration Tools on Interdisciplinary Teaching” International Association of Technology, Education and Development (IATED), EDULEARN13 Proceedings Ed L. Gómez Chova, A. López Martínez, I. Candel Torres

Professional Memberships
AIA (American Institute of Architects)

Name: Illya Azaroff, AIA

Courses Taught
ARCH 3551 Sustainability History, Theory and Practice, ARCH 3610 Design Studio VI, Fall 2014
ARCH 3551 Sustainability History, Theory and Practice, ARCH 3610 Design Studio VI, Spring 2015
ARCH 3551 Sustainability History, Theory and Practice, ARCH 3610 Design Studio VI, Fall 2015
ARCH 3551 Sustainability History, Theory and Practice, ARCH 3610 Design Studio VI, Spring 2016

Educational Credentials
Masters of Architecture, March Hons. *Pratt Institute, Brooklyn New York,* 1997
Bachelors of Architecture, B. Arch. Hons. *Pratt Institute, Brooklyn New York*, 1997
Bachelors of Science of Architecture Studies, BSAS, *University of Nebraska,* 1992
Bachelors of Arts in Geography, BA, minor in history: *University of Nebraska,* 1992

Teaching Experience
Associate Professor of Architectural Tech, *CUNY - New York City College of Technology, NYC,* 2008-present

Instructor, NDPTC - *Natural Disaster Preparedness Training Center - University of Hawai,* 2012-present
Adjunct Professor, *School of Visual Arts Interior Design, NYC,* 2008-2014
Guest lecturer, *Pratt Institute Graduate Center, NYC,* 2011-12
Adjunct Professor, *CUNY - New York City College of Technology, NYC,* 2004-08

Professional Experience
Principal, *+LAB Architect PLLC. Brooklyn, New York,* 2008-present
Director of Design, *Design Collective Studio, New York City,* 1999-08
Project Architect, *Carol Maryan Architects P.C., New York City,* 1997-99

Licenses/Registration
Licensed Architect New York State Lisc. No. 032178-1
CalEMA SAP - Safety Assessment Program 72218

Selected Publications and Recent Research
Illya is a recognized expert in resilience, serving as a Technical Advisor to the Federal Government for the NDFR-National Disaster Recovery Framework. Additionally, he regularly works with the Department of Homeland Security, FEMA and on a regional level with RCPT – Regional Catastrophic Planning Team, OEM, DCP and the Mayor's Office of Recovery and Resilience in NYC.
Sandy's Watery Wakeup Call, Illya Azaroff, AIA ,Lance Brown FAIA, Oculus Spring '13
Post Sandy Initiative, Illya Azaroff, Contributor, AIA New York Chapter, May '13
"A platform for the future of the city", Illya Azaroff, Contributor, AIA New York Chapter '13
Azaroff, I., Marinic, G. (June 2010) *Enabling Emergence: Realizing a Design-Build Environment*, Design Principles & Practices: An International Journal, Common Ground Publishing, Champaign, IL

Professional Memberships
AIA - American Institute of Architects Serving as NY Regional Rep. to AIA National Strategic Council
Young Architects Forum Advisory Committee, Advocacy Director
Founding Co-chair Design for Risk and Reconstruction Committee, AIA NY Chapter
Founding Co-chair AIA Regional Recovery Working Group
RCPT - Advisor Regional Catastrophic Planning Team
RETI - Advisor Redhook Initiative
EDRA – Environmental Design and Research Association, past member.
AAG – Association of American Geographers, past member.
AFHNY - Architecture for Humanity - Member

Name: Jill Bouratoglou, RA

Courses Taught:
Architectural Graphics 1, Architectural History, Architectural CADD, Architectural Drawing III, Design III: Appreciation and Analysis, Architectural Drawing IV, Software in the Architectural Office, Design IV, Design V, Design VI, Urban Design, Space Planning

Educational Credentials:
Pratt Institute, Master of Architecture, May 1994
University of Washington, Bachelor of Arts in Architecture, June 1990
Bachelor of Architecture, May 1994
Pratt in Greece and Cyprus, Summer 1993

Teaching Experience:
Assistant Professor of Architectural Technology, City College of Technology, CUNY; 2001 – 2008
Associate Professor of Architectural Technology, City College of Technology, CUNY; 2008 – present

Professional Experience:
Principal, Bouratoglou Architect, P.C. Brooklyn, NY; February 1999- Present
Architect, STV Incorporated, New York, NY; October 1999-August 2001
Design Lead, Hom + Goldman Architects, New York, NY October 1995- January 2001

Licenses/Registration:
Registered Architect in New York State; 1998 – present

Selected Publications:
Clarke, Katherine. "Pacific Street Is Brooklyn's New Gold Coast." NY Daily News. N.p., n.d. Web. 05 May 2016.
Jill Bouratoglou and Lia Dikigoropoulou "Global Interactions into the traditional Design Studios through Blogs" Athens Journal of Architecture Volume 1, Issue 2 p 137-159, April 2015 ISSN NUMBER: 2407-9472
Fine Homebuilding Tauten Press Houses 2006 "A Duplex Grows in Brooklyn"
Simple Homes Tauten Press – project included in this book
Small Homes , Best of Fine Homebuilding. Tauton Press, 2011 A Duplex Grows in Brooklyn.
Design Brooklyn, Stewart, Tabori & Chang , 2013 Mike D's Towhouse. Page 72.
Earle-Levine, Julie. " License to Grill" New York Times, June 12, 2013.
Renovation Nation with Steve Thomas, Discovery Channel, Planet Green, June 4, 2009.

Recent Research:
CUNY Research Scholars Program student grant for research in documenting Site Analysis Case Studies

Name: Ting Chin

Courses Taught
Design 3 & Building Technology 3, Fall 2013
Design 3 & Building Technology 3, Spring 2014
Design 3, Fall 2014
Design 3 & Building Technology 3, Fall 2015
Design 3 & History of Theaters (Interdisciplinary Course), Spring 2016

Educational Credentials:
Master of Architecture, *Harvard University Graduate School of Architecture;* 2004
Bachelors of Arts in Architectural Studies, *University of Washington;* 1998
University of Washington Rome Program, Rome, Italy; 1997

Teaching Experience:
Assistant Professor of Architectural Technology, *NY City College of Technology, CUNY;* 2013 - present
Invited Guest Juror, *Pratt Institute, School of Visual Arts, Cooper Union*

Professional Experience:
Principal, *Linearscape Architecture PLLC, New York, New York;* 2011 – present
Senior Project Designer, *HOK Architecture, New York, New York;* 2008 – 2013
Associate Project Architect, *TPG Architecture LLP, New York, NY;* 2005-2007
Designer, *Michael Van Valkenburgh Associates, New York, NY;* Summer 2002, 2003

Licenses/Registration:
Registered Architect in New York State; 2010 – present
Registered Architect in New Jersey; 2014 – present

Selected Publications:
“1x1: Digital and Analog Skills”, The National Conference on the Beginning Design Student, 2016
“Manufacturing Gowanus”, Spaces & Flows: An Int’l Journal of Urban & ExtraUrban Studies, 2016
“TECHNĒ”, Volume 3. New York: New York City College of Technology, Spring 2016
“TECHNĒ”, Volume 2. New York: New York City College of Technology, Winter 2015
“TECHNĒ”, Volume 1. New York: New York City College of Technology, Spring 2014
“Brave New City”, Metropolis, 2012

Selected Work Cited:
”Wild Walk,” Domus, 2015
"Linearscape Puts Together Coincidence and Certainty to Build a Young Firm." AIArchitect, 2013.
"Symbiopia." The Harlem Edge- Cultivating Connections. ENYA AIA New York Chapter, 2012
"Real Solutions at Harlem’s Edge." Oculus. Fall 2012

Recent Exhibitions:
“Harlem Edge Exhibition”, The Center for Architecture, New York, NY, 2012

Professional Memberships:
Member of American Institute of Architects in good standing; 2010 – present
National Council of Architecture Registration Boards; 2011- present
Society of American Registered Architects; 2014- present

Name: Kenneth Conzelmann

Courses Taught:
Arch History 2; Architectural Internship, Fall 2014
Arch History 2; Architectural Internship, Spring 2015
Arch History 2; Architectural Internship, Fall 2015
Design 2; Architectural Internship, Spring 2016

Educational Credentials:
AA Graduate Master's Diploma, History/Theory Program, The Architectural Association School of Architecture, London, England, 1986
Bachelor of Architecture, New Jersey Institute of Technology, Newark, NJ, 1984

Teaching Experience:
Assistant Professor, Department of Architectural Technology, NYC College of Technology, The City University of New York, Brooklyn, NY, with adjunct positions and current FT position, 1991-present
Instructor, Institute of Design and Construction, Brooklyn, NY, 2005-2010
Architectural guest critic/speaker: Pratt Institute; NYU, Department of German; The Cooper Union; Parsons School of Design - The New School; Tisch School of the Arts, NYU; City College; New York Institute of Technology; New Jersey Institute of Technology. 1990-present
Mentor, ACE Mentor Program, prep. HS students for careers in design/build, Fox/Fowle Architects 2002-2003
Instructor, Learning by Design: Architects-in-Schools, AIA/NY. Newcomers High School, LIC, 2001; PS 89 Queens, 2001, 2000, 1999; LaGuardia International H.S., LIC, 1999, 1998; I.S. 265, Fort Greene, 1997.

Professional Experience:
Private and collaborative architectural practice, New York, NY, 2004-present
PerkinsEastman Architects, Project Manager, New York, NY, 2003-2004
NYC School Construction Authority, Project Architect, Long Island City, NY, 1996-2003
Consulting for multitude of design firms (16) including Berg&Forster, Croxton, Thierry Despont, Paino Soffes, Hetterich (Germany), ButtrickWhiteBurtis, KPF; Private and collaborative architectural practice; 1989-1996
Helpern Architects, New York, NY, 1987-1988

Licenses/Registration:
Registered Architect, New York, 1990 (License # 21426-1)

Selected Publications and Recent Research:
Article. “VIA 57 West”. Critical review of new building by BIG Architects; SARA|NY Design Awards Journal 2016
Article. “The New Whitney Museum of American Art”. Critical review for ChelseaNow newspaper, Sept. 2015.
Article. “Excellence in Urban Learning Environment Design”. Critical review of expansion and renovation of John Jay College by SOM Architects for SARA|NY Design Awards Journal 2014
Book Article. “Passiv Haus: Approaching a Net Zero Energy Architecture”. 16TH Inernationale Passivhaustagung 2012. Proceedings of the Annual International Passive House Conference, Hanover, Germany, May 4-5, 2012 Darmstadt, Germany: Passivhaus Institut, 2012.

Professional Memberships:
Director, SARA|NY (Society of American Registered Architects, New York Council), 2009-present
Member, AIA (American Institute of Architects), 1996-present

Name: Lia Dikigoropoulou

Courses Taught:
Design V ARCH 3510, Design VI ARCH 3610, Fall 2014
Overseas Studies ARCH 3900, Winter 2015
Design V ARCH 3510, Design VI ARCH 3610, Urban Design ARCH 4710, Spring 2015
Design VI ARCH 3610, Summer 2015
Design III ARCH 2310, Design V ARCH 3510, Design VI ARCH 3610, Fall 2015
Design V ARCH 3510, Spring 2016

Educational Credentials:
Bachelor of Architecture B. Arch *University of Minnesota,* 1987
Master of Science in Architecture and Building Design, MS *Columbia University,* 1989

Teaching Experience:
Assistant Professor, *New York City College of Technology, Brooklyn NY,* 2008-Present
Instructor, *Institute of Design and Construction*, 2002- 2015
Full Time Substitute, *New York City College of Technology, Brooklyn NY*, 2007-2008
Adjunct Assistant Professor, *New York City College of Technology, Brooklyn NY,* 2005-2007

Professional Experience:
Architect, *Lia M. Dikigoropoulou, RA, NCARB, Brooklyn, NY,* 1992- Present
Team Supervisor, *HABS/HAER National Park Service. Blue Ridge Parkway Recording Project,* Summer 1997 Designer, *George Cooper Rudolph III Architects New York, New York,* 1989-92

Licenses/Registration:
New York State Registered Architect Registration Number-025380
Cyprus Organization of Architects and Civil Engineers Registration Number- 722

Selected Publications and Recent Research:
Lia Dikigoropoulou/Jill Bouratoglou “Global Interactions into the traditional Design Studios through Blogs” Athens Journal of Architecture Volume 1, Issue 2 p 137-159, April 2015
Lia Dikigoropoulou “ A movie becomes the driver for inspiration, in a design studio” Poster Presentation, Architectural Design Conference ARCHDESIGN ’14.Contemporary Discussions and Desig Methodologies. DAKAM Eastern Mediterranean Academic Research Center p293-p294. May 2014
Lia Dikigoropoulou “Global interaction into the traditional Design Studios thru Blogs” Proceedings for the 102nd Annual Meeting: GLOBALIZING ARCHITECTURE Conference of ACSA (Association of Collegiate Schools of Architecture). *Architecture Flows and Disruptions* John Stuart & Mabel Wilson, (2014): p41-42 April 2014
Dikigoropoulou Lia “LeFrak Center at Lakeside” Society of American registered Architects (SARA) 19th Annual Design Awards Publication. (May 2014) page 7
Dikigoropoulou Lia “121st Police Precinct” Society of American registered Architects (SARA) 2013 18th Annual Design Awards Publication. May 2013

Professional Memberships:
NCARB- National Council of Architectural Registration Boards
SARA- Society of American Registered Architects
ETEK- The Cyprus Scientific and Technical Chamber

Name: **Michael Coleman Duddy**

Courses Taught:
ARCH 4710: Urban Design Studio, ARCH 1110: Foundations I Studio, Fall 2014
ARCH 4710: Urban Design Studio, Spring 2015
ARCH 4710: Urban Design Studio, Fall 2015
ARCH 2410: Fourth-semester Design Studio, ARCH 1121: History of Architectural Technology
LIB/ARCH 2205: Learning Places: Interdisciplinary Research, Spring 2016

Educational Credentials
Masters of Architecture, *Yale University School of Architecture,* 1985
Bachelor of Arts in Urban Design Studies, *New York University,* 1979

Teaching Experience
Assistant Professor of Architectural Technology, *New York City College of Technology,* Fall 2012 – Present
Adjunct Professor, *New York City College of Technology,* Fall 2010 – Spring 2012
Adjunct Professor, *School of Visual Arts,* Spring 2009 – Spring 2012

Professional Experience
Principal, *DCI Designgroup International,* 2003 – Present
Principal, *MDA Designgroup,* 1997 – Present
Project Architect, *FRCH Design Worldwide,* 1995 – 1997
Associate, *HOK Architects,* 1988 – 1995
Designer, *Fox & Fowle Architects,* 1986 – 1988
Designer, *Cesar Pelli & Associates,* 1984 – 1986
Designer, *Davis Brody & Associates,* Summer 1982, 1983
Designer, *Hardy Holzman Pfeiffer,* 1979 – 1980
Designer, *SITE Projects,* 1977 – 1979

Licenses/Registration
Licensed Architect, State of New York

Selected Publications and Recent Research
Completed
- "Roaming Point Perspective: A Dynamic Interpretation of the Visual Refinements in the Greek Doric Temple." *Nexus Network Journal: Architecture and Mathematics*, Birkhauser/Kim Williams Books, vol. 10, no. 2, Spring 2008, pp. 291-306.

In Progress
- "A Priori Judgment: The Foundation of the Architectonic." Submitted for peer review
- "Essential Form: Architecture and Representation." Draft substantially complete
- "The Birth of Pictorial Space, Geometrically Reconsidered." Draft in progress

Professional Memberships
None at this time

Name: Claudia Hernandez Feiks

Courses Taught
ARCH 1110 Foundations I, ARCH 1191 Visual Studies I, Fall 2014
ARCH 1210 Foundations II, ARCH 1291 Visual Studies II, Spring 2015
ARCH 1110 Foundations I, ARCH 1191 Visual Studies I, Fall 2015
ARCH 1210 Foundations II, ARCH 1291 Visual Studies II, Spring 2016

Educational Credentials
Master of Science in Advanced Architectural Design *GSAPP, Columbia University -New York.* 2006
Bachelor of Architecture, *California Polytechnic State University - San Luis Obispo, CA.* 2000
CSU International Program - Florence, Italy. 1998 -1999

Teaching Experience
Assistant Professor, Architectural Technology, *City University of New York, New York City College of Technology - Brooklyn, NY,* January 2015 – Present
Adjunct Lecturer, *New York City College of Technology - Brooklyn, NY,* September 2014 – Dec 2015
Substitute Lecturer, *New York City College of Technology - Brooklyn, NY,* 2012 – August 2014:
Adjunct Lecturer, *New York City College of Technology - Brooklyn, NY,* January 2009 – 2012:
Visiting Assistant Professor, Interior Design, *Pratt Institute - Brooklyn, NY,* Sept 2007 – Present
Mentor, Columbia University Mentor Program for 1st Year Master of Architecture Design Studio, *GSAPP, Columbia University - New York, NY,* Sept 2005 - May 2006
Instructor, Architecture Summer Career Workshop, *California Polytechnic State University - San Luis Obispo, CA,* June 2000 - July 2000

Professional Experience
Designer / Project Manager, *Plain Space Inc. Architecture and Design, New York, NY,* Sept 2006 – Aug 2012
Designer / Project Manager, *EOA (Elmslie Osler Architect) - New York, NY,* August 2006 - April 2007
Designer, *Michael Harris Architecture - San Francisco, CA,* Jan 2002 - May 2005
Junior Project Architect, *LPA Architects - Irvine, CA,* July 2000 - September 2001

Licenses/Registration
NY Architect licence # 037639-1

Professional Memberships
NCARB

Name: Kevin Hom

Academic Leadership:
Dean/Senior Academic Officer, New York City College of Technology: School of Technology and Design; Fall 2012- Present

Educational Credentials:
Master of Architecture, Columbia University Graduate School of Architecture; 1974
Bachelors of Science/Engineering, Columbia University School of Engineering and Applied Science; 1970

Teaching Experience:
Associate Professor of Architecture, New York City College of Technology, CUNY; Fall 2011 - present
Adjunct Assistant Professor, New York City College of Technology, CUNY; Spring 2010 – Fall 2010
Adjunct Assistant Professor, New York University Graduate School of Education; 1997 - 2001

Professional Experience:
Principal Founder, Kevin Hom Architect, PC, New York, New York; 1988 – present
Managing Principal and Design Director, Arthur Erickson Architects, Los Angeles, California; 1984 – 1987
Director of Architectural Design, Gibbs & Hill, New York, New York; 1980 – 1983
Project Architect, Ulrich Franzen & Associates; Harrison & Abramowitz;
Marcel Breuer & Associates; I.M. Pei + Partners, New York, New York 1974-1980

Licenses/Registration:
Registered Architect in New York State, 1978; California, 1986, Washington D.C., 1997; Connecticut, 2001; Virginia, 2006; Colorado, 2008
NCARB Certified , LEED AP, AIA

Lectures (Partial List):
“Sustainable Design in Universities: Pursuing the Zero CO2 Campus”, The WC2 University Network Conference, London, UK; 2015
“Honoring a University’s Renaissance Tradition, Case Study: University of San Diego Student Center”, Association of College Unions International, Regional Conference – Princeton University, NJ; 2010
“Designing the Future: Brooklyn Waterfront; Design & Urban Landscape”, Pratt Institute, NY; 2013

Professional Papers/Presentations (Partial List):
“Meet the Architects & Engineers”, Professional Women of Construction, New York, NY; 2010
“Schools that Make the Grade: Discover New Opportunities in Charter Schools and Private Universities’, Society of Marketing Professional Services, New York, NY; 2010
“Good Design for Good Causes”, New York City College of Technology, CUNY, New York, NY; 2008

Representative Projects/ Kevin Hom Architects (Partial List):
“New Campus Center” Student Center, SUNY Farmingdale State College Farmingdale, NY
“Business School” Academic Building, Fordham University, New York, NY
“Waldmann Dental Library” Library Renovation, NYU Dental College, New York, NY
“Chatham Square Branch” Library Renovation, NY Public Library, New York, NY
“Harlem Armory Recreational Center” Recreational Facilities, NYC Police Athletic League, New York, NY
“Altschul Lehman Auditorium” Auditorium, Barnard College, New York, NY

Professional Memberships:
Member, American Institute of Architects;
Member, Society for College and University Planning
Member, Association of College Unions International

Name: Jihun Kim

Courses Taught
Architectural Design III & Building Performance Simulation, Fall 2014
Building Performance Simulation, Spring 2015
Advanced Simulation for High Performance Buildings, Summer 2015
Building Performance Simulation, Fall 2015
Site Planning, Architectural Design III, & Building Performance Simulation, Spring 2016

Educational Credentials
Doctor of Philosophy in Architecture, *University of Pennsylvania, Philadelphia, PA* (2010-2015)
Master of Architecture, *University of Michigan, Ann Arbor, MI* (2002-2004)
Bachelor of Engineering in Architecture, Myongji University, South Korea (1994-2001)

Teaching Experience
Assistant Professor of Architectural Technology, City College of Technology, CUNY; (2014 – present)
Lecturer, School of Design, University of Pennsylvania (2012)
Technical Advisor, School of Design, University of Pennsylvania (2013-2014)
Visiting Critique, School of Design, University of Pennsylvania (2012-2015)
Teaching Assistant, School of Design, University of Pennsylvania (2011-2014)

Professional Experience
Principal Consultant, ISOENV (2011-Present)
Graduate Researcher, TC Chan Center for Building Simulation & Energy Studies (2010-2014)
Architect, TVSDESIGN (2005-2010)
Intern Architect, Hyundai Engineering & Construction Co., Ltd. (2001)

Licenses/Registration
Registered Architect in Pennsylvania (2012-Present)
Registered Architect in Georgia (2009-Present)
Leadership in Energy & Environmental Design Accredited Professional, U.S. Green Building Council (2009-Present)
Autodesk Building Performance Analysis Certificate, Autodesk (2014)
National Technical Qualification Certificate - Architecture, Republic of Korea - Human Resource Development Service (2001-Present)

Selected Publications and Recent Research
Kim, J, (2016). “A Rapid Indoor Airflow Mapping with Two-Dimensional Computational Fluid Dynamics”, Paper presented at Passive and Low Energy Architecture conference, Los Angeles, CA
Kim, J. (2015). An Urban-Conscious Rapid Wind Downscaling Model for Early Design Stages. (Doctor of Philosophy Dissertation), University of Pennsylvania Philadelphia, PA
Kim, J. (2015). Energy Analysis 2015 Solar Decathlon Project Manual for NYC College of Technology: Department of Energy
Yi, Y. K., & Kim, J. (2013). Daylight Mapping Using Kriging. Paper presented at the 13th International Conference of IBPSA, Chambery, France
Kim, J., Phillips, B., & Braham, W. (2013). Discovery-Performance-Design. Paper presented at the 13th International Conference of IBPSA, Chambery, France
Kim, J., Yi, Y. K., & Malkawi, A. M. (2011). Building Form Optimization in Early Design Stage to Reduce Adverse Wind Condition, Using Computational Fluid Dynamics. Paper presented at the 12th Conference of International Building Performance Simulation Association, Sydney, Australia

Professional Memberships Member of American Institute of Architects (2009-2010)

Name: Paul C King

Courses Taught
ARCH 2330 Building Tech III, ARCH 4400 Special Topics in Architecture, Fall 2014
ARCH 2330 Building Technology III, ARCH 4831 Design to Build, Spring 2015
ARCH 4831 Design to Build (The Solar Decathlon), Summer 2015
ARCH 4400 Special Topics in Architecture, (The Solar Decathlon), Fall 2015
ARCH 2330 Building Technology III (2 sectoins), Spring 2016

Educational Credentials:
Masters of Urban Planning 2007
Bachelor of Architecture, 1984
Bachelor of Science, Landscape Architecture, Magna cum Laude, 1983

Teaching Experience:
Associate Professor, New York City College of Technology, August 2013-Present
Assistant Professor, New York City College of Technology, Fall 2007-August 2013
Full Time Substitute Professor, New York City College of Technology, January 2006-May 2007
Adjunct Lecturer, New York City College of Technology, January-Dec. 2005
Adjunct Lecturer, New York City College of Technology, September 1988-1992
Adjunct, Institute of Design and Construction, Spring 2013-2015
Adjunct, Lecturer, Parsons School of Design, 1998-1999
Adjunct, Lecturer, City College of New York, January 1992-1997

Professional Experience:
Principal, Paul C, King Architects, 2015-present
Principal, CADD Management Consulting, Inc., 1991-2015
Staff Archtiect, Davis Brody & Associates, 1983-1991

Licenses/Registration:
Registered Architect, New York State, 1988 (License No. 020451)

Selected Publications and Recent Research:

Conference Presentation June 2-5 2016	King, Paul. "**Before the Bridge "Roebling's Four Aqueducts of the D & H Canal."** This Society of Industrial Archaeology (SIA) 45th Annual Conference, Kansas City, Missouri
Conference Presentation April 13 2016	King, Paul. "**The Solar Decathlon: Mentoring an Urban Population"** International Mentoring Association 28th Annual Conference: Auburn University, Alabama
Book Chapter 2015	"Beyond Petropolis: Designing a Practical Utopia in Nueva Loja", Oscar Riera Ojeda Publishers, ISBNB 978-988-16194-2-6
Journal January 2016	King, Paul. "**US Department of Energy Solar Decathlon"** Article: Nucleus, A Faculty Commons Quarterly, Volume 7 - Fall 2015

Professional Memberships:
Past President, Society of American Registered Architect (New York Council)
Member, American Institute of Architects and Member, Society of Industrial Archeology

Name: Anne E. Leonhardt

Courses Taught
Introduction to Parametric Computation Fabrication, Architectural Animation, 3D Modeling and Rendering for Architecture, Visual Studies II, Design Foundations I & II, History of Architecture Since 1900, History of Architectural Technology, Architectural Model Making

Educational Credentials
Master of Architecture, Yale School of Architecture, New Haven, CT; 1998
MA, University of Cambridge, St. John's College, 1989
BA with Honors, University of Cambridge, St. John's College, 1987
AB, Smith College, 1985

Teaching Experience
Associate Professor of Architectural Technology & Director of Digital Media, New York City College of Technology, CUNY; 2015 to present
Assistant Professor of Architectural Technology, New York City College of Technology, CUNY; 2004 to 2015 and Director of Digital Media/Fabrication 2007 - 2015

Professional Experience
IK | AL Design, Principal/Partner, New York-Madrid, Sustainable Design/Visualization/Fabrication, 2008-present
Anne Leonhardt Architects, Principal, Residential/Commercial Design Build, New York, NY, 2000-present
Fink + Platt Architects, New York, NY, Project Architect/Manager, 1999-2000
Koenen & Associates Architects, New York, NY, Project Architect/Manager, 1998-1999
Duo Dickinson Architects, Madison, CT, 1997-1998

Licenses/Registration
R.A. New York State, January 2010

Selected Publications
Anne Leonhardt, (Editor). Re-Envisioning the Urban Edge: South Street Seaport. 2008. New York: Center for Architecture. Exhibition catalogue with contributions by Michael Sorkin, Anne Buttenweiser, and Anne Leonhardt on the future of this site and the ideas and designs from the 3rd International Biennial Emerging New York Architects' Committee Competition.

EDULEARN13, Barcelona (Spain), July 1st-2nd-3rd, 2013, published conference proceedings (juried, peer-reviewed), The Impact of Digital Collaboration Tools on Interdisciplinary Teaching: Closing the Loop - Completing the Design/Analysis > Fabrication > Validation Cycle. (ISBN: 978-84-616-3822-2)

Professional Memberships
Member of American Institute of Architects
Member Architecture League, 2004 – present
Member Association for Computer Aided Design in Architecture; 2008 - present

Name: Agustin L. Maldonado FARA / NCARB Rank: Professor

Courses Taught
ARCH 2410 (Architectural Design IV) and ARCH 4710 (Urban Design), Fall 2014
ARCH 2410 (Architectural Design IV) and ARCH 4710 (Urban Design), Spring 2015
ARCH 2410 (Architectural Design IV) and ARCH 4710 (Urban Design), Fall 2015
ARCH 2410 (Architectural Design IV) and ARCH 4710 (Urban Design), Spring 2016

Educational Credentials:
Bachelor of Architecture, *The Cooper Union*
MS Tropical Architecture, *Pratt Institute*
Advanced Hospital Planning Certificate, *Columbia University & NY Council of the American Institute of Architects*

Teaching Experience:
Extensive teaching experience for many years at NYCCT teaching a wide range of courses.
Guest speaker/critic at Cornell University, Pratt Institute, NY Institute of Technology, Columbia University, Architectural Forum of the Hamptons, Bank Street College of Education, Centenary College, The Somerset Art Association
Served as Chair of the Architectural Technology Department for eighteen years
Served as Interim Dean of the School of Technology and Design at NYCCT/ The City University of NY

Professional Experience:
Active architectural private practice since 1975:
Scope of work has included a diverse number of projects ranging from the design and construction of multi-million dollar houses throughout the United States, apartments, hotels, commercial projects, master plans, a hospital in El Salvador, chemical laboratories in Long Island, California, England and Germany, numerous interiors for offices, law practices and medical facilities. Several projects received design awards and were featured in various publications and in exhibits.
Prior architectural experience included working on the design and construction of British Airways at JFK, Academic Buildings at Kingsborough Community College, and multiple governmental projects

Licenses/Registration:
- Registered Architect in New York, New Jersey and Pennsylvania
- National Council of Architectural Registration Boards Certification

Selected Publications and Recent Research:
- Member of the four member Historic Preservation Committee that successfully obtained Landmark District Designation for Tudor City and its parks in NYC
- **"**Gateways to Chinatown" Publication of projects designed in our Urban Design studios. Prof. Beita and I are currently working on a follow-up book "Visions for Downtown Brooklyn" featuring multiple proposals to transform local sites with tremendous potential.
- Currently working with the East Midtown Coalition and the local community to develop proposals for a ten acre site directly south of the United Nations
- CUNY TV produced a film on our work for Medical Mission International in El Salvador

Professional Memberships:
Fellow of the Society of American Registered Architects .
Served as President of the NY Council of Society of American Registered Architects
Co-Chair of Design Awards SARA/NY (for the past six years)

Name: Barbara Smith Mishara

Courses Taught:
ARCH 1121 History of Architectural Technology, Fall 2014, Spring 2015, Fall 2015, Spring 2016
ARCH 2480 Structures I Fall 2014, Spring 2015
ARCH 3522 A History of New York City Architecture, Fall 2014, Fall 2015, Spring 2016
ARCH 3640 Historic Preservation: Theory and Practice, Fall 215
ARCH 4900 Internship in Architectural Technology in association with Solar Decathlon, Spring 2015

Educational Credentials:
MS Historic Preservation, Columbia University School of Architecture, Planning & Historic Preservation, 1994
BS Architectural Technology summa cum laude, New York Institute of Technology,1984
MS Social Work, Columbia University School of Social Work, 1973
BA psychology and biology, Notre Dame College of Staten Island, 1968

Teaching Experience:
Assistant Professor, Department of Architectural Technology, NYC College of Technology, 9/2008- present
Lecturer, ARE Licensing Review, Institute of Design and Construction, 2005- 2015
Adjunct Associate Professor, Department of Architectural Technology, NYC College of Technology, 2002-2008
Adjunct Assistant Professor, New York Institute of Technology, 2005-2007

Professional Experience:
Consultant, Adjunct Academy NYC College of Technology, 2004-2006
Grant awarded by US Department of Education Fund for Improvement in Post-Secondary Education
Principal, Barbara Smith Mishara, Architect, 1990-2005
Project Manager, Ralph P. Albanese, Architect, 1984-1990
Director, Lower Manhattan Treatment Center, New York State Department of Mental Hygiene, 1973-1976
Social Worker, St. Vincent's Hospital, 1968-1971

Licenses/Registration:
Registered Architect, New York State, 1990
Certified Social Worker, New York State, 1973

Selected Publications and Recent Research:
"Innovation and Collaboration" Solar Decathlon 2015 with Alexander Aptekar
12th Annual Poster Session, New York City College of Technology, 2014
"Academic Service Learning: A Bibliography" Open Lab web site, New York City College of Technology, 2013

In progress: "A History of New York City Architecture", open educational resource
"The advisement process and students under represented in the profession of architecture", research

Professional Memberships:
Licensing Advisor, NCARB, 2015- present
American Institute of Architects, 1988 –
President, AIA New York State, 2005
President, American Institute of Architects, Brooklyn chapter, 2000-2001
Chair, Component Relations Advisory Task Force, AIA National component, 2000-2001

Name: Jason Andrew Montgomery, NCARB LEED AP

Courses Taught
ARCH 1230 Building Technology II, ARCH 4710 Urban Design, Fall 2014
ARCH 1230 Building Technology II, ARCH 4710 Urban Design, Spring 2015
ARCH 1130 Building Technology I, ARCH 2205 Learning Places, ARCH 4710 Urban Design, Fall 2015
ARCH 2205/LIB 2205 Learning Places, ARCH 2310 Design III, 2016 Spring

Educational Credentials
Master of the Arts in Architecture, *University of Wales at Cardiff, United Kingdom,* 1997
Diploma in Architecture, *Prince of Wales's Institute of Architecture, United Kingdom,* 1996
Bachelor of Architecture (magna cum laude), *University of Notre Dame, South Bend, IN,* 1992

Teaching Experience
Assistant Professor, *New York City College of Technology, CUNY, New York,* 2009–present
Visiting Assistant Professor, *Yale School of Architecture, New Haven, CT,* 2003
Visiting Assistant Professor, Director of Third Year Design Studio, *University of Notre Dame Rome Program, Rome, Italy,* 1997-1999

Professional Experience
Principal, *Truong Montgomery Architect, New York, NY,* 2010-present
Principal, *Hart Howerton, New York, NY,* 2004-2009
Project Architect, *Cooper Robertson and Partners, New York, NY,* 1999-2004
Project Architect, *Porphyrios Associates, London, England,* 1994-1997
Project Architect, *John Simpson and Partners, London, England,* 1993-1994

Licenses/Registration
Architect, New York State, 2009-present
Architect, Pennsylvania, 2012-2013

Selected Publications and Recent Research
- Contributor to: Macaulay-Lewis, Elizabeth, and Ross Burns. "A Roman Monumental Building in South-east Damascus?" *Levant* 47.1 (2015): 93-111. Web.
- Major Contributor to: E. Macaulay-Lewis, Bayt Farhi and the Forgotten Sephardic Palaces of Late Ottoman Damascus, Manar al-Athar Monograph Series, no. 3, University of Oxford, forthcoming 2016.
- Co-Editor, "TECHNĒ", Volume 3. New York: New York City College of Technology, Spring 2016
- Co-Editor, "TECHNĒ", Volume 2. New York: New York City College of Technology, Winter 2015
- Co-Editor, "TECHNĒ", Volume 1. New York: New York City College of Technology, Spring 2014

- Montgomery, Jason with Michael Duddy. "Brooklyn Square: A Gateway to Brooklyn." Poster presented at 13th Annual City Tech Faculty Research Poster Session, Brooklyn, November 19, 2015.
- Montgomery, Jason. "Making Sense of Big Data." Participated in panel discussion, Brooklyn Tech Triangle U, Brooklyn, New York, April 23, 2014.
- Montgomery, Jason, and Philippe Gozlan with Pompei AD. *Urban Master Plan. Redondo Beach Waterfront.* Redondo Beach, California, 2013.

Professional Memberships
NCARB Certificate Holder 2009-present

Name: Shelley E Smith

Courses Taught
Materials and Construction Methods in Architecture (Spring 2007, Fall 2008, Fall 2009)
Architectural Design III and IV (Spring 2007 – Spring 2010)
Architectural Office Management (Professional Practice) (Spring 2007)
Detail and Construction Technologies for Existing Buildings (Spring 2008, Fall 2008, Spring 2010)

Educational Credentials:
MA, MPhil, PhD in Architectural History, Columbia University: 1982, 1985, 1999
Bachelor of Architecture, Cornell University: 1979
German Major, University of Georgia: Attended 1973 – 1975

Teaching Experience:
Associate Professor of Architectural Technology, NY City College of Technology, CUNY: 2012 - present
Assistant Professor of Architectural Technology, NY City College of Technology, CUNY: 2007 - 2011
Adjunct Assistant Professor, Marymount College of Forham University: 2002 - 2006

Selected Professional Experience:
Associate, Walter Sedovic Architects, Irvington, New York: 1998 – 2007
Project Manager, Buttrick White & Burtis, New York, New York: 1989 – 1994
Project Manager, Jorge O. Sosa, P.C. with Pavel Cillik, New York, New York: 1987 – 1989

Licenses/Registration:
Registered Architect in New York State; 1991 – present
Registered Architect in the Commonwealth of Virginia; 1995 – present

Selected Publications:
"Design and Building Construction in the Provincial Setting: The Case of the South Carolina Plantation House," The South Carolina Historical Magazine 116:1 (January 2015), 4-28.
C. Carson, and C. Lounsbury, eds., The Chesapeake House: Architectural Investigations by Colonial Williamsburg, (2013), review essay, The Winterthur Portfolio 49:1 (Spring 2015), 56-58
"Using Ground–Penetrating Radar (GPR) to Investigate Historic Masonry Buildings," APT Bulletin (Journal of the Association for Preservation Technology International) XLI: 2-3 (2010).

Recent Conference Presentations:
"Stewardship and Preservation in the Layered Landscape: Lessons from Bedford NY," Association for Preservation Technology Annual Conference, November 2016, San Antonio TX (forthcoming).
"The Low-Rise, Postwar Apartment Building in Honolulu: Understanding a Housing Typology," Vernacular Architecture Forum Annual Conference, 1-4 June 2016, Duham NC.
"Advanced Technologies in Education and Practice: Lessons from the Fuse Lab," (with Sanjive Vaidya) AIA New York State Annucal Conference, 9-11 October 2015, Saratoga Springs NY.

Selected Grants:
Director, "Fuse Lab: Collaborative Education for Tomorrow's Technology in Architecture, Engineering and Construction," National Science Foundation Advanced Technology Education (2011-2014).
Co-Director, "Along the Shore: Changing and Preserving the Landmarks of Brooklyn's Industrial Waterfront," National Endowment for the Humanities (June 2010, June 2012).

Selected Professional Memberships:

American Institute of Architects	Association for Preservation Technology
Vernacular Architecture Forum	Society of Architectural Historians

Name: Esteban Beita Solano

Courses Taught
Urban Design ARCH 4710, Design Foundations II ARCH 1210, Visual Studies II ARCH 1291, Fall 2014
Urban Design ARCH 4710, Spring 2015
Urban Design ARCH 4710, Fall 2015

Educational Credentials
Doctorate of Engineering in Architecture *University of Tokyo, Institute of Industrial Science,* 2010
Master of Architecture *University of Tokyo, Institute of Industrial Science,* 2007
Bachelor of Architecture *University of Costa Rica,* 2005
Bachelor of Architecture *New York Institute of Technology,* 2003

Teaching Experience
Adjunct Assistant Professor, *New York Institute of Technology*
Adjunct Assistant Professor, *New Jersey Institute of Technology*
Lecturer, *Vladivostok State University of Economics* Vladivostok, Russia

Professional Experience
Principal & Founder *Wabi Design* U.S.A. / Costa Rica, 2008 – Present
Architect, Design Consultant, Project Manager *NOVOA occidental* San Jose, Costa Rica, 2003 – 2015
Principal, Consultant *Fractal Architects* Tokyo, Japan, 2008 – 2009
Architect Assistant *Kengo Kuma & Associates* Tokyo, Japan, 2006 – 2009
Architect Assistant *The Hillier Group* Manhattan, New York, 2001 – 2003

Licenses/Registration:
Licensed Architect, Federal College of Engineers and Architects of Costa Rica (A-16142)

Selected Publications and Recent Research:
- E. Beita, “Redefining Urban Spaces in New York City’s Chinatown through the Creation of Gateways”, ASCA / AIK International Conference, *Open Cities: The New Post-IndustriaL World Order*, Ewha Womens University, South Korea, 2014
- E. Beita, “The Bosen Tea Room and Funairi Pavilion: Expanding the Awareness of Space Through Traditional Japanese Design Principles”, Architecture Design Conference, *ARCHDESIGN 14: Contemporary Discussions and Design Methodologies*, Mimar Sinan Fine Arts University, Istanbul, 2014E. Beita, "Harmonization Between Architecture and Nature Through Traditional Japanese Screens", *International Journal of Design & Nature and Ecodynamics*, WIT Press, 2011
- E. Beita, “Ambiguous Boundaries: A Japanese Way of Designing with Nature”. *Harmonization between Architecture and Nature*. Wessex Institute of Technology, 2010, 12-25
- E. Beita, “Obscured Boundaries: A Case Study on the Design Principles used in the “Bosen” Tea Room of Koho-an Temple”. The University of Tokyo, 2010.
- “Kengo Kuma & Associates”. Studies in Organics. TOTO Publishing, 2009, 147, selection of renderings for the cava market project in Italy.
- “Kengo Kuma: Recent Projects”. A.D.A.EDITA Tokyo, 2009, 40, 42, 43, 78-81, selection of renderings created for competitions and projects.

Professional Memberships:
Member of Society of American Registered Architects (SARANY)
Member of the International Scientific Advisory Committee for the Eco-architecture 2012 conference in Kos, Greece

Name: Sanjive Vaidya

Courses Taught

Arch 1100 Building Technology I
Arch 1110 Design Foundations I
Arch 1191 Visual Studies I
Arch 1140 Materials in Architecture
Arch 2450 Sustainability in Architecture
Arch 2411 Design IV
Arch 3550 Building Performance Workshop
Arch 3661 Advanced Materials Workshop

Educational Credentials:

Master of Architecture, Columbia University Graduate School of Architecture; 1995
Bachelors of Science in Architecture, Catholic University of America; 1992

Teaching Experience:

Assistant Professor of Architectural Technology, City College of Technology, CUNY; 2009 - present

Professional Experience:

Principal, Sanjive Vaidya Architect, PLLC, New York: 2012 – present
Founder, Vaidya Stoltz Architects, LLP (Partner): 2005-2012
Associate, Davis Brody Bond Architects,LLP: 1998-2005
Staff Architect, Pei Cob Freed & Partners: 1995-1998

Licenses/Registration:

Registered Architect in NY, NJ, MD 2000 – present
Registered Special Inspector (construction) in New York City; 2012 – present
NCARB Certified – 2000 - present

Selected Publications:

Alexander Aptekar, Arpan Bakshi, Zach Downey, Anne Leonhardt, Brian Ringley, Sanjive Vaidya. "Closing the Loop - Completing The Design/Analysis > Fabrication > Validation Cycle. the Impact of Digital Collaboration Tools on Interdisciplinary Teaching." Edulearn13: Proceedings. Spain: International Association of Technology (IATED), 2013.

Ligaya, Mishan. “A Quiet, Modest Brooklynite.” New York Times Dining & Wine., 30 Aug. 2012. [http://www.nytimes.com/2012/09/05/dining/reviews/lulu-po-in-fort-greene-brooklyn.html] 13 Apr. 2013.

Vaidya, Sanjive. “The Green Embassy: Designing for Sustainable Diplomacy.” Green-Buildings. 06 April 2009 [http://www.green-buildings.com/content/78480-green-embassy-design-sustainable-diplomacy] 13 Apr. 2013.