



NEW YORK CITY COLLEGE OF TECHNOLOGY  
**CITY TECH**

New York City College of Technology  
City University of New York  
Department of Architectural Technology  
300 Jay Street  
Brooklyn, New York 11201

# Architecture Program Report Initial Candidacy

Bachelor of Architecture  
160 semester credits

Sanjive Vaidya Chair, Department of Architectural Technology  
186 Jay Street Voorhees-818  
Brooklyn, New York 11201  
SVaidya@citytech.cuny.edu  
718-260-5262

Kevin Hom Dean, School of Technology and Design  
186 Jay Street Voorhees-806  
Brooklyn, New York 11201  
KHom@citytech.cuny.edu  
718-260-5525

Bonne August, Ph.D. Provost and VP for Academic Affairs  
300 Jay Street Namm-320  
Brooklyn, New York 11201  
BAugust@citytech.cuny.edu  
718-260-5560

Russell K. Hotzler, Ph.D. President  
300 Jay Street Namm-320  
Brooklyn, New York 11201  
RHotzler@citytech.cuny.edu  
718-260-5400

# Architecture Program Report - Initial Candidacy

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# Section 1. Program Description

## I.1.1 HISTORY AND MISSION

### *COLLEGE*

New York City College of Technology (City Tech) is one of the largest public colleges of technology in New York State. With a fall 2016 enrollment of 17,282 students<sup>1</sup>, 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 (CUNY) 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. In the same year the Department of Architectural Technology was authorized to offer a four-year Bachelor of Technology (BTech) degree. In New York State, BTech degrees require a minimum of 30 credits of liberal arts. 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 currently 17,282 students matriculated across the college in the various bachelors and associates degree programs and that number continues to grow each year. The college is expanding its physical plant with the construction of new 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

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<sup>1</sup> <http://air.citytech.cuny.edu/data-dashboard/enrollment-trends-fall/>

updated elevators. Labs and studios in the department are continually 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<sup>2</sup>, (3624 Market Street, Philadelphia, PA 19104, 267-284-5000). Discipline specific boards also accredit individual degree programs.

### **COLLEGE MISSION STATEMENT**<sup>3</sup>

*New York City College of Technology is a baccalaureate and associate degree-granting institution committed to providing broad access to high quality technological and professional education for a diverse urban population. City Tech's distinctive emphasis on applied skills and place-based learning built upon a vibrant general education foundation equips students with both problem-solving skills and an understanding of the social contexts of technology that make its graduates competitive. A multi-disciplinary approach and creative collaboration are hallmarks of the academic programs. As a community City Tech nurtures an atmosphere of inclusion, respect, and open-mindedness in which all members can flourish.*

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### **COLLEGE EDUCATION GOALS**

*As a result of a City Tech education, students will:*

- *Develop knowledge from a range of disciplinary perspectives, and hone the ability to deepen and continue learning.*
- *Acquire and use the tools needed for communication, inquiry, analysis, and productive work.*
- *Work productively within and across disciplines.*
- *Understand and apply values, ethics, and diverse perspectives in personal, professional, civic, and cultural/global domains.*

### **DEPARTMENT MISSION STATEMENT**

*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.*

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<sup>2</sup> Middle States Accreditation Link: [https://www.msche.org/institutions\\_view.asp?idinstitution=67](https://www.msche.org/institutions_view.asp?idinstitution=67)

<sup>3</sup> The 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>

## *DEPARTMENT<sup>4</sup>*

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 metropolitan 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 for learning and as an extension of the classroom.

Our twenty full-time faculty are practicing, licensed professionals, and our part-time instructional pool of over sixty adjuncts hold prominent positions in city agencies, at prestigious public or not-for-profit institutions or with the region's leading private architecture, design and engineering firms. Our faculty are increasingly recognized regionally and nationally for their important contributions to the profession. The department has been awarded significant grants that have provided new resources and research opportunities for our faculty and students. The student experience is enriched through participation in programs such as Emerging Scholars which provides students the opportunity to conduct advanced study and research alongside faculty mentors. Faculty and students have presented research at professional conferences receiving 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 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. Faculty with special expertise in these fields lead these courses. 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.

Our students are motivated to participate in, and be leaders of the college's many student-initiated clubs. The Architectural Club, our study abroad program and other special initiatives have facilitated our students' travel and study at destinations around the world. As active members of professional organizations our students 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.

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<sup>4</sup> Descriptive Film on the Department of Architectural Technology: <https://vimeo.com/227292475>

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, graduates of the department were prized for their work related skills, in particular 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 CUNY system. The addition of the four-year degree proved popular and our student population expanded significantly topping off at almost 900. 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 to be more in line with NAAB requirements for an accredited degree. The updated degrees are more well-rounded, integrating the college's general education focus as well as placing greater emphasis on an integrated design process with a strong foundation in technical 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 a significant range of equipment including 3d printers, laser cutters, CNC mills, 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 faculty of New York City College of Technology is unique in many ways. Each full-time faculty member is a registered architect creating a professional body unmatched in academic circles. In addition the majority of the faculty, maintain an active practice or are part of professional studio culture and belong to a broad range of professional societies and certifying bodies such as USGBC, EDRA, NOMA, 2030 district, the AIA-American Institute of architects, and SARA-The society of American registered architects. Of note our faculty have played many key roles in professional development and leadership of the Architecture profession over the years in addition to community outreach and engagement.

Prof. Barbara Mishara AIA, has served as AIA New York state president, and serves as AIAS; AXP coordinator at the school, Prof. Tim Maldonado FARA, has been inducted into the Cooper Union Hall of Fame and is a Fellow of the Society of American Registered Architects (SARA), he served as President of the NY Council of SARA and serves as Co-Chair of Design Awards SARA/NY. Prof. Paul C King, ARA, has been a member of the executive board of the New York Council of the Society of American Registered Architects (SARA) since 2009 and served two consecutive two-year terms as president from 2012-2014. Prof. Philip Anzalone AIA has served as a Member of the Board of Directors for AIA New York State and New York Regional Representative to the Young Architects Forum 2015-16 and is currently Co-Chair of AIA NY Professional Practice Committee. In addition Phillip is on the

Board of Directors of the Association of Computer Aided Design in Architecture (ACADIA) 2018.

Prof. Shelley E Smith AIA, PhD. is recognized for her research on Historic preservation and serves as the professional member of the Bedford Historic Building Preservation Commission and the Katonah Historic District Advisory Commission. Prof. Jill Bourtagalou, RA serves on the Board of Brooklyn Autism Center and like many of the faculty maintains a professional practice and consultancy. Prof. Esteban Betia, AIA, PhD. is well known for his research on Traditional Japanese Architecture and recently served as a guest designer for the Ronald McDonald House of Long Island. Prof. Illya Azaroff AIA is recognized for his expertise in resilience and serves on the AIA National Strategic Council (class of '18), AIA New York state board, YAF Adcom Advocacy Director and co- founder of the Design for Risk and Reconstruction committee at the AIA New York chapter. He serves on the Board for SHADE- Sustainable Humanitarian Architecture Design for the Earth. He advises the New York City Mayors office (ORR) and the Federal Government (HHS) on building the National Disaster Framework. Currently the appointed Chair of AIA Board Knowledge Committee.

Prof. Ken Conzelmann, AIA, has served as co-instructor with the AIA/NY Learning by Design/Architects in Schools program for NYC public schools as well as the ACE Mentor Program that helps prepare high school students for careers in design and construction. He is part of a roundtable for Professional Practice Professors in New York City and since 2009 serves as a board director and co-chair for Special Design Awards committee with SARA|NY. Prof. Claudia Hernandez is the department acting liaison with the Architecture League and school student organizations. Prof. Lia Dikigoropolou, serves as the international exchange liaison, and founded the schools international exchange program for the collage. Prof. Michael Duddy AIA serves as Co-chair, Yale School of Architecture Alumni Fund (2016-current) and Delegate, Association of Yale Alumni for the School of Architecture (2011-2015).

Several faculty members have worked with the 2030 district being set up in New York as subject matter experts including Prof. Jihun Kim, PhD. with expertise in energy modeling and environmental design. Prof. Alexander Aptekar AIA, along with a broad spectrum of faculty, led the schools recent Solar Decathlon team DURA entry and engages in advancing sustainability through prototyping.

The demonstrated outreach, partnerships and valuable leadership to professional societies by the City Tech faculty set a high standard for the students and continue to demonstrate exemplary leadership in service to the profession, community, and society.

The department is a growing center for academic and scholarly activity in cutting-edge design and technologies that impact the field. Prof. Smith was the project director the 4-year National Science Foundation Fuse Lab project at the college, a four-year, \$877,322 grant funded by the National Science Foundation's Advanced Technology Education program. The grant supported curriculum development, co-curricular support structures, faculty training and enrichment, and partnerships with industry experts focused on three key technology areas in today's construction industry: building information modeling (BIM), building performance (green/sustainable technologies), and advanced computation and digital fabrication. The project was undertaken as part of a broad curriculum initiative in response to the accelerating roles of digital modeling, simulation, and prototyping in the AEC industry. These tools allow

builders, engineers, and architects collaborate evermore closely from the outset of project conception and design through construction and post-occupancy. These industry developments have required a transformation in preparing students for the workplace. The Fuse Lab provided funding for a more rapid, rich, and effective transition of curriculum and access to resources than would otherwise have been possible. Prof. Smith has served as co-PI for several other grant projects at the college-funded by Title V and the National Endowment for the Humanities.

Our “Intersections” symposium series<sup>5</sup> initiated by our department and held annually at our college has exposed our students to academics and practitioners as they share their research and explore potential applications of techniques, software and tools that increase building performance and enhance project delivery. Our faculty and students study issues of development in Brooklyn and bring these to the public through exhibitions and symposia. Professional development workshops sponsored by our department provide faculty, students and local professionals’ with opportunities to develop new skills in software and tools to enhance their practice.

In support of the college’s emphasis on General Education and Interdisciplinary Learning, our department’s faculty have played a leading role on campus in curriculum redesign and new course development. Five of our faculty were awarded fellowships through the college’s Living Lab Grant<sup>6</sup>, giving them release time to focus on general education principles and teaching techniques through seminars and projects. Our faculty took the initiative to develop a new Interdisciplinary Course titled Learning Places that brings together faculty from the Architectural Technology Department, the Library, and The Hospitality Department, among others, to help students across the college develop placed-based learning skills that are rooted in primary source research, direct observation, and information literacy. Courses like this prepare a wide range of City Tech students for life in the 21st century with skills rooted in inquiry and community and civic engagement.

From 2013-2015 we compiled a ten-year self-study of our department, a process that 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 at the 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 BArch programs around the country. His clear recommendation to our department is to formally pursue NAAB accreditation.<sup>7</sup>

Enrollment and graduation data illustrates that an increasing number of students are seeking our four-year BTech degree, demonstrating the demand for higher levels of education in 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

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<sup>5</sup> Fuse Lab/Intersections Sample Link: <https://openlab.citytech.cuny.edu/fuselab/event/intersections-2015/>

<sup>6</sup> A Dept of Education Title V grant supporting re-envisioning General Education at City Tech. For more information regarding the Living Lab Grant, follow this link: <https://openlab.citytech.cuny.edu/livinglab/>

<sup>7</sup> External Evaluator Report by Wayne Drummond, FAIA, Dean Emeritus and Professor, University of Nebraska-Lincoln, 2015\_05. See Link: [https://www.dropbox.com/s/aqhh87hlf6yw7w5/NYCCT\\_Drummond%20FINAL%20%281%29.pdf?dl=0](https://www.dropbox.com/s/aqhh87hlf6yw7w5/NYCCT_Drummond%20FINAL%20%281%29.pdf?dl=0)

number students earning the BTech degree increased 60%, 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 importance to the New York City marketplace.

These trends support our position and Dean Drummond's recommendation to take the next step to evolve our program further by offering an accredited five-year BArch Degree This new program will provide a significantly 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.

To fulfill our mission to provide a high-quality architectural education to an underserved urban population, the college collects "Tech Fee" funds from each registered student and administers these to directly benefit our students. This is the primary source of funding which supports the regular update of hardware, software and other technologies in our classrooms. In recognition of our commitment to institute an accredited professional degree program in architecture, the college intends to seek additional financial support for fifth-year BARCH students.

## I.1.2 LEARNING CULTURE

A number of unique factors 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 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. Additionally, many of our students have other responsibilities including jobs, or the care of children or elders requiring them to be particularly efficient with their time. 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 outside of their class time while on campus. 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 4-5 credit hours allocated, translating to a range of 7-9 contact hours per week. As we set out to revise our curriculum we studied our allocation of credits and contact hours in our studio courses. We compiled data from 27 BArch programs around the country. We found that our credit allocation was 77% of the average of the other programs and our contact hours are currently only 66% of the average allocation. The limitations on class time due to low credit and contact hour allocations puts more pressure on the students to execute significant amounts of their project work outside of class time, where they work without guidance or feedback from either faculty or student peers. While some students are able to manage their time out of class well, others 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 the impact of these challenges provides the motivation to modify our design curriculum as part of development of our BArch curriculum.

We are preparing a curriculum proposal for submission to our college council that increases the credit allocation for studio courses to 5-6 credits per course with 9 nominal lab hours total divided into two class meetings 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. Critical to student success, the longer and more frequent class contact hours will allow students to execute more of their design in the supportive environment of the studio helping with the development of both design and time management skills. This higher allocation of studio credits will expand our current effort to integrate knowledge from across the curriculum into studio work, an important pedagogical goal of our program where we place a high level of importance on building technology. This integrative approach to studio is currently enhanced by a wide range of workshops that offer students supplemental support in their development of technical skills.

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 workload and student access to studio spaces. 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 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 open enrollment student body with outside responsibilities such as employment and family support needs presents additional obstacles to the creation of a supportive learning environment. While each course type (design, building technology, history, structures) is clearly sequenced, the inability for many of our students to maintain a full credit load creates challenges in our attempts to find synergies between learning as it occurs across these parallel subjects. To support the outside responsibilities of our urban commuter students we make an effort to offer flexible programming with sections of most courses offered both during the day and in the evening. While our curriculum modifications seek to continue to find the right balance between a reinforced integrated sequence and flexibility, we anticipate that the final three years of the BTech degree will require a tighter adherence to the sequence.

An important goal of our program is to develop additional support mechanisms to help maintain strong and supportive student cohorts. Residential colleges with 24/7 access to studios have the potential to create strong cohort bonds between students who spend long hours together. Contrary to the expectation that the urban commuter environment would minimize cohort bonding, we have found that our students are able to form bonds and a level of camaraderie. Our students often strive for efficient schedules that keep them on campus all day, where they find time between classes to socialize and support each other. Due to existing space constraints this activity typically occurs in cafeteria and informal study spaces that are carved out by our students. While this cohort bonding is occurring, we seek to further facilitate it through the introduction of a series of events throughout the academic year that bring the cohorts together and encourage them to share experiences, communicate, and give feedback to the department. This includes a new cohort group advisement structure that will aid our students’ understanding of the degree program options available to them and to share experiences and common challenges to their learning. This advisement structure has been mapped out on our new BArch curriculum chart (section II.2.2). It also includes an annual Town Hall that will encourage broad attendance by the full department student body and full-time and part-time faculty, an event that will allow the department community to build relationships and common sense of perspective and intention.

A significant activity that brought students together across all years of our program was our participation in the 2015 International Solar Decathlon competition. As a college wide activity this effort helped us to develop greater synergies with other departments within our college, and modifications to our curriculum including a new course entitled “Special Topics in Architecture” that allows us to run a topical course available with no pre-requisites that can respond in a timely manner to topic events affecting our students. Superstorm Sandy was just such an event. Its impact was the major theme for our Solar Decathlon entry and continues to impact our curriculum.

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. These clubs host lectures, workshops, and also sponsor travel, both local and international, to visit significant architectural works and architectural offices. Through both infrastructure improvements and the development of additional activities the department continues to look for methods and opportunities to develop greater cohort support.

#### STUDIO CULTURE POLICY DEVELOPMENT

Along with this modified studio curriculum, the department is preparing a draft outline for a Department Studio Culture Policy. A committee consisting of a faculty member and six current upper level students initiated the process in late summer 2017, defining a list of intentions and documenting issues to be addressed as the Studio Culture Policy is developed. The intentions of the committee are:

- To create the first studio culture policy at NYCCT.
- To improve the culture of the studio experience and environment.
- To teach the importance of maintaining a healthy and balanced life in order to avoid or limit the amount of stress students usually experience during studio classes.
- To keep a balance between the importance of personal health and the importance of classes.
- To create a syllabus that allows for flexibility in the studio classes according to the students' inputs/opinions and strengths.
- To allow for interactive presentations as opposed to the "jury" model of reviewing work encouraging participation and dialog instead of judgment and discipline.

This committee documented the following issues that they would like to see addressed in the Studio Culture Policy:

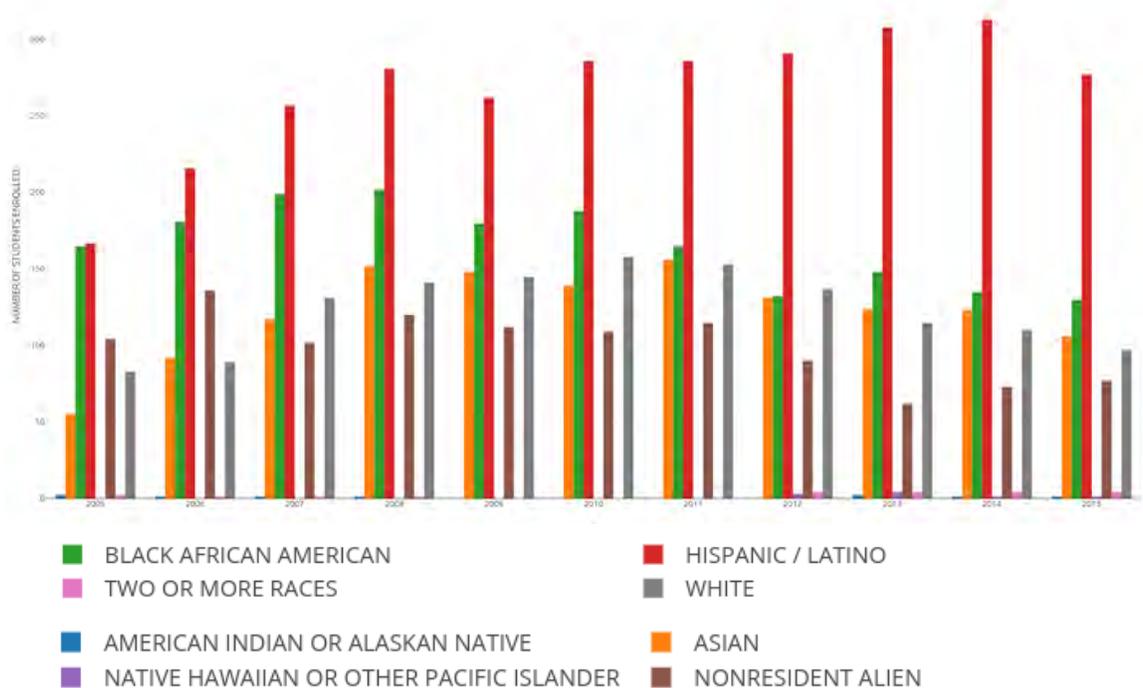
- To create a formal mechanism where students can provide feedback to the faculty regarding teaching methodology.
- To document the specific challenges and stress that studio courses generate due to faculty expectations and requirements (including physical models that must be transported on public transportation due to lack of student storage on campus.)
- To encourage a balance between lecture time and studio work time so that students can execute work in class with the guidance of the faculty member.
- Gender equality cannot be assumed, but must be consciously and constantly maintained. Female students express a sense of lack of equality in treatment and recognition.
- Faculty must promote and support student health at all times, mentoring students to help them keep a healthy balance between schoolwork and life outside of school. Faculty should model and teach time management skills and encourage strategies for success that are achievable without sacrificing health.
- Sustainability should be the goal in work and life as well the built environment.
- Faculty should communicate intentions behind studio teaching practices and methods to help students apply themselves to achieve the goals and objectives of the course with creativity and ingenuity, avoiding confusion or rote conformity that can stifle learning.
- Students and faculty should be encouraged to develop a dialogue that tracks stressors while also emphasizing the importance of key student performance requirements.
- Studio culture should encourage and facilitate the free expression of ideas.

- Studio should allow for conceptual exploration that is not always constrained by real world parameters to encourage invention and pushing past convention.
- Criticism must always be constructive and supportive of student learning. Faculty critiques should endeavor to build student confidence and intellectual independence.
- Opportunities for student participation and collaboration with faculty in professional projects and teaching assistance would enhance student learning and skill development. Volunteers should be recognized with a certificate outlining their contribution.

The policy will be formally drafted this fall 2017, and presented to the full student body and faculty for review and comment in the winter of 2018. During the formal drafting, the procedures for periodic review and assessment of the policy will be defined and offered for review and comment along with the policy.

### I.1.3 SOCIAL EQUITY

Department of Architectural Technology Fall Enrollment by Ethnicity 2005-2015



City Tech offers a diverse, multicultural learning environment. Diversity is a central asset of our program and our culture at City Tech. 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.

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

### 2015 Fall, 2014 Fall, 2013 Fall and 8 more Enroll Term(s) and Department by Ethnicity

1st Row Variable	2nd Row Variable	Chosen Column Variable								
		American Indian or Alaskan Native	Asian	Black or African American	Hispanic/..	Native Hawaiian or Other Pacific Isl..	Nonresident Alien	Two or more races	White	Grand Total
2005 Fall	Architectural Technology	2	55	165	167		104		83	576
2006 Fall	Architectural Technology	1	92	181	216		136		89	715
2007 Fall	Architectural Technology	1	117	199	257		102		131	807
2008 Fall	Architectural Technology	1	152	202	281		120		141	897
2009 Fall	Architectural Technology		148	180	262		112		145	847
2010 Fall	Architectural Technology		139	188	286		109		158	880
2011 Fall	Architectural Technology		156	165	286		115		153	875
2012 Fall	Architectural Technology		131	132	291	3	90	4	137	788
2013 Fall	Architectural Technology	2	124	148	308	4	62	4	115	767
2014 Fall	Architectural Technology	1	123	135	313	1	73	4	110	760
2015 Fall	Architectural Technology	1	106	130	277	1	77	4	97	693
	<b>Grand Total</b>	<b>9</b>	<b>1,343</b>	<b>1,825</b>	<b>2,944</b>	<b>9</b>	<b>1,100</b>	<b>16</b>	<b>1,359</b>	<b>8,605</b>

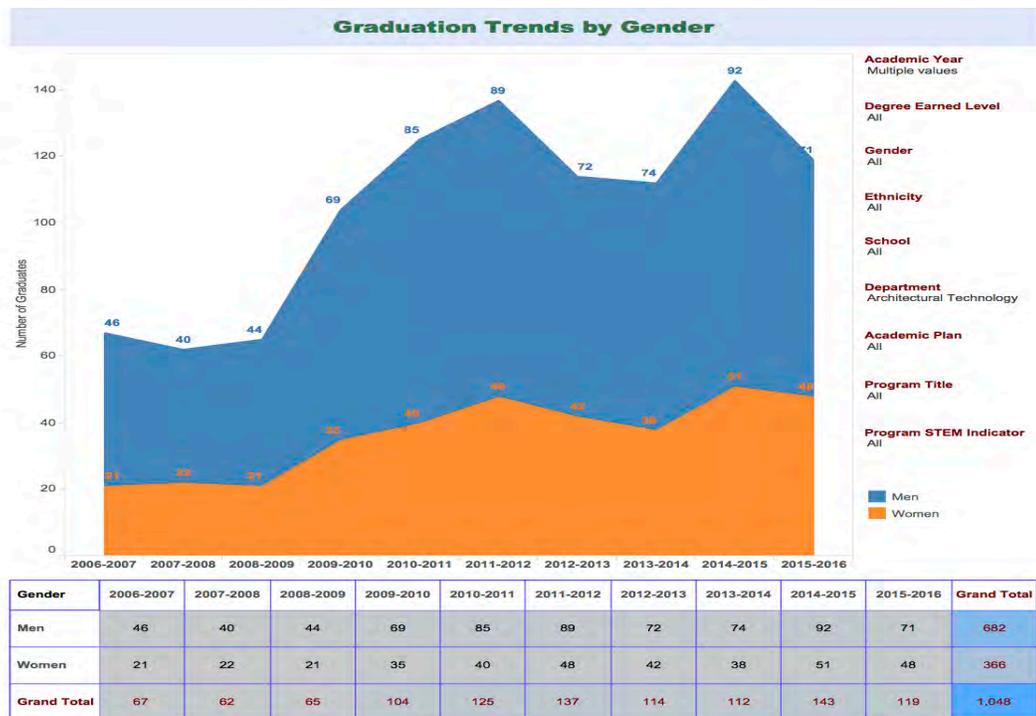
Students enter with widely disparate levels of academic preparation, professional goals and personal circumstances. As an open access institution, City Tech's historic mission has been to offer opportunities for educational advancement to students regardless of financial circumstances or prior academic 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 New York City's first 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 CityTech 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 a wide range of counseling and academic support services, including career and academic planning, personal counseling, a state-of-the-art computer lab, academic coaching and tutoring in many subject areas.
- ASAP: As a university wide initiative for community colleges, ASAP (Accelerated Study in Associate Programs) was started at City Tech in fall of 2015. 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 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 across our 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. CLT's are typically hired from among our more advanced students and adjunct faculty.
- Design Serv: As part of the licensing certification process junior architects are required to complete 80 hours of "Professional and Community Service". Junior architects can earn these credits by serving as mentors to our students.

The diversity of our students is fundamental to our program, and changes to our curriculum and degree programs are examined specifically for their potential impact on student diversity. The open enrollment policy allows students of all backgrounds a starting point in our department. Our goal is to help as many of these students as possible reach a level where they become eligible for our BArch degree. As our BArch degree program starts up, we will assess the profile of the students who achieve eligibility and compare that profile to our entering first year students. We anticipate the need to make adjustments to our early curriculum and add further support mechanisms to improve access to the new degree program. A critical long-range goal is to ensure that access to the BARCH program does not reduce diversity, and we will collect and monitor data through annual assessment.



Data source: IRDB



ANALYSIS OF DEPARTMENT FULL-TIME FACULTY DIVERISTY<sup>8</sup>

	MALE	FEMALE	WHITE	HISPANIC LATINO	BLACK AFRICAN AMERICAN	ASIAN
GENDER	14	7				
ETHNICITY			14	3	1	3
TOTAL: 21 FULL-TIME FACULTY						

The faculty reflects the wide ethnic background of the Architectural Department’s student body. Besides American-born professors, a number of full-time and part-time faculty are foreign-born and received their architectural degrees in the United States. Those countries include Argentina, Bulgaria, Costa Rica, China, Colombia, Cuba, Cyprus, Dominican Republic, Ecuador, Great Britain, Greece, Jamaica, Haiti, India, Iraq, Israel, Italy, Mexico, Montenegro, Peru, the Philippines, South Korea, Spain, Turkey, the Ukraine, and Venezuela.

Likewise, many of the adjunct Classroom Laboratory Technicians (CLTs) that provide technical classroom support are graduates from our program. They have equally diverse backgrounds, with a heavy concentration of Hispanic, African/American, and Asian roots.

In interviewing teaching candidates, the Appointments Committee values faculty ethnic diversity that reflects our students’ background. This has proven to be an important asset in delivering our educational goals. The Appointments Committee follows the required CUNY policy on Equal Opportunity and Non-discrimination.<sup>9</sup>

The college does not currently track the gender and ethnicity of part-time faculty. We are developing a tracking system within the department so we can report this in future APRs.

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<sup>8</sup> Data provided by Patricia A. Cody, Esq, Chief Diversity Officer/Title IX Coordinator/ADA-504 Coordinator, Office of Compliance and Diveristy, NYC College of Technology, Link: <http://www.citytech.cuny.edu/compliance-diversity/>

<sup>9</sup> CUNY EEO/Non-Discrimination Policy Link: <http://www2.cuny.edu/wp-content/uploads/sites/4/page-assets/about/administration/offices/hr/policies-and-procedures/CUNYPolicy-Equal-Opportunity-and-Non-Discrimination-010115-procedures.pdf>

## 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-based 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, and Industry City) to guide 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 requirement that all graduating BTEch 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.
- Closing the Loop: The Closing the Loop Project explored how recent technological advances in the AEC industry have increased the potential of façade performance. In this project we are implementing an interdisciplinary student initiative, where various courses collaborate on portions of the design process of façade panels, and through this process, fully close the design/analysis/fabrication/validation loop. This initiative sequenced courses in building technology, sustainability and fabrication as a capstone project. It was presented at the "Facades+<sup>10</sup>" 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

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<sup>10</sup> Facades + is a conference organized by the Architects Newspaper, with the goal of furthering the design and performance of the next generation of façades. <http://2016nyc.facadesplus.com>

Emerging Scholars program where students work in small groups directly with a professor on a research project that is shared at a judged college-wide public poster 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 to 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. The club sponsors international travel to 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: An annual 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 range of activities sponsored by 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 the AIA and SARA and continue to serve as member of local executive councils.
- Internship Program: Our internship program gives our students professional working experience while enrolled in our program and has provided a bridge 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: 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 attended by professionals, faculty and students, 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, 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 skills that 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 our 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 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 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.
- Workshops in the Department: provide guidance on resume writing, professional portfolios, interviewing techniques, soft skills, and internship requirements.
- The Professional Development Center: one-on-one career coaching, resume critiques, interviewing techniques, soft skills, and workshops on professional development.
- 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 BTech degree are eligible for architectural licensure with slightly different requirements than those with a BArch 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 lasting impact on the faculty and students of our department. Many were displaced from their homes and were 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.' Prof. Azaroff facilitates HURRIPLAN training annually at the department as well as around the country 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 review meetings 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 is 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 can 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 or the availability of space at school. Dedicated studio spaces for the BArch students will ensure that students have full accessibility to the resources of the department and will 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 in response to the diversity of our students the study of architecture cultures outside of the Western tradition.
- Introduce Virtual Desktop Infrastructure (VDI) to demonstrate a model for an interactive design classroom. The VDI environment creates greater flexibility in classroom and study spaces.
- 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, BTech, and BArch 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.A PROGRAM SELF-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 and course levels. 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. The foundation of our program around open enrollment and the wide variation in college preparedness and learning styles in our student cohorts requires special attention to the teaching effectiveness of our courses and curriculum flow. This leads us to pursue the following objectives and activities for assessment in our department:

- General Education Development: We actively participate in campus wide assessment cycles focused on particular general education learning goals. The general college assessment plan is structured around a three year cycle. The cycle begins with the selection of a Gen Ed student learning outcome and an assignment and rubric that will be the vehicle for the assessment. Most recently, we focused on Civic Engagement. This vehicle is piloted to validate the assessment. In addition, our faculty participate in college wide workshops allowing peer review and input into the assignment and the assessment strategy. The second year the adjusted vehicle is administered to a larger student population so a large data pool can be collected and analyzed. In the third year, an improvement plan is developed and implemented.
- Assess Prior Knowledge and Skills Development: In our early courses, we assess student familiarity and fluency with orthographic architectural drawing, their general and discipline specific reading skills, note taking and information organization. We are developing new approaches to this assessment process. For example, we ask students to analyze architectural drawings to demonstrate understanding of components, elements, and systems depicted in the drawings, including structure, circulation, fenestration as well as spatial and architectural composition.
- Monitoring Course Pass Rates: We monitor courses that have significant rates of failure and review the course objectives and assignments for the appropriate level of challenge. We also review strategies for increasing support for students including workshops and one-on-one tutoring outside of the classroom. This monitoring has also led to new courses and shifts of the flow of the curriculum to focus more on foundation skills and understanding of the discipline for first year students.
- Periodic Faculty Course Review: Each academic year, the chair selects courses for review by the full-time faculty. The course coordinator prepares a presentation of the current objectives of the course, examples of student work at different levels, including high pass and low pass. This process allows the full-time faculty to assess the level of student performance in the course but also the relationship to other courses before and after in the curriculum sequence. This process helps avoid the silo effect of courses operating in isolation and reinforces the support each course can provide to the others that follow.

- Course Redesign: The college has encouraged faculty to be change leaders that seek to institute a culture of assessment, adjustment, and change rather than stasis and inflexibility. The college uses multiple venues for instituting this culture, including fellowships through the Living Lab Grant, mentioned above, as well as professional development seminars like Bridging the Gap organized by the Faculty Commons, participation on college wide and school committees like the Gen Ed Committee, Course Coordination Committee of the School of Technology and Design. Faculty from the Department of Architectural Technology are active participants across all of these initiatives, and also serve as facilitators for a number of them.
- Critical Course Assessment: The department periodically identifies specific courses that play a critical role in the degree programs for more specific examination.
- Program Outcomes Review: As part of the responsibility of the department to the college, we periodically review our Program Outcomes for each degree. If revision is required to reflect changes to the program or the curriculum, the outcomes are adjusted. Along with this review, the department chair and liaison develop a plan to assess the program level outcomes, with specific courses identified for assessment vehicle development. We are currently entering a new cycle of this assessment work, with the vehicle development starting in the fall 2017.
- Professional Input and Review: A resultant of the FUSE Lab project is the cultivation of direct relationships with technical staff and principals of leading Architecture and Engineering firms in the US and Europe. This includes companies like Transsolar, Buro Happold and Ove Arup. The FuseLab established an advisory board that allowed for direct input on course structure and technical content. Members sat on student reviews to better inform themselves about the program.

### I.1.6.B CURRICULAR ASSESSMENT AND DEVELOPMENT

- Department Chair: The chair is responsible for assuring the department assessment process is functioning as required. The chair assigns a faculty member to the liaison position and works with the liaison to plan strategically the department's assessment efforts.
- Department Assessment Liaison: The college requires each department to have an assessment liaison that manages and monitors assessment activity in the department. This faculty member attends assessment coordination meetings at the school and college levels and works with faculty on assessment vehicles and data collection. This liaison's service allows the department to stay up to date on best practices and achieve the assessment goals of the college and the department.<sup>11</sup>
- Course Coordinators: This role is critical in our department, as many courses have multiple sections and a significant proportion of our faculty are part-time. The course coordinator is responsible to prepare and update the course materials and to meet with

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<sup>11</sup> See this link for list of liaisons: <http://air.citytech.cuny.edu/assessment/designated-assessment-liaison>

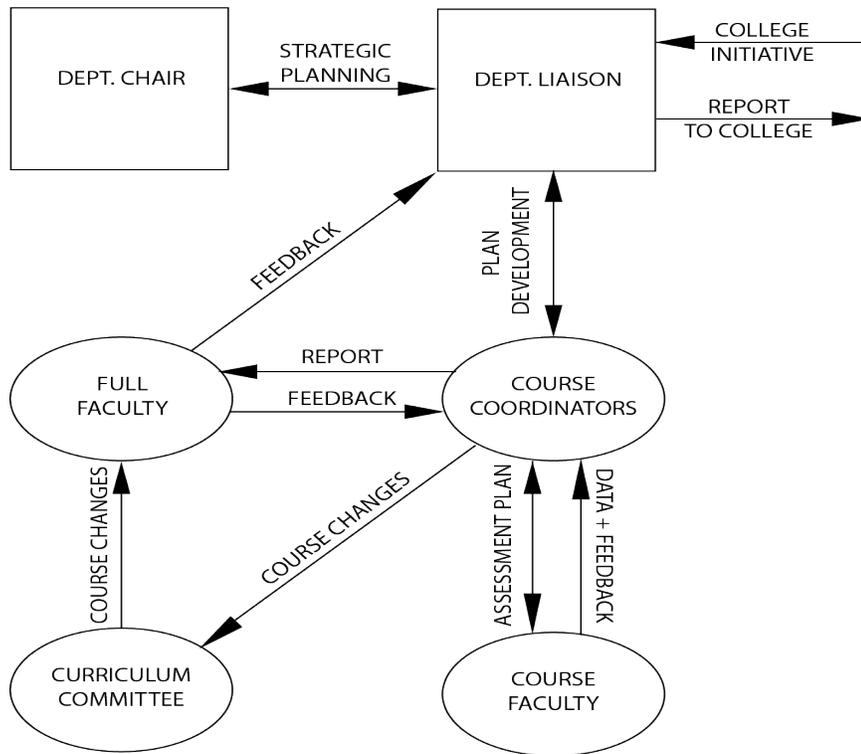
the faculty each semester to review the course objectives, share insights and discuss challenges. The course coordinator is the conduit and manager of the assessment process for the course, spearheading the development of the assessment plan with the department liaison and then coordinating its implementation with the faculty. The course coordinator is responsible to collate the data and work with the liaison to develop a report which includes proposed adjustments to the course in the improvement plan. The course coordinator will also periodically make a presentation to the full-time faculty in faculty meetings to keep the group up to date on student performance, communicate challenges, and seek feedback. An outgrowth of this process is a new initiative to create sequence coordinators who provide overall coordination for a sequence of courses, for example building technology or design.

- Course Faculty: Faculty assigned to a course with multiple sections are responsible for working together to ensure reasonable consistency in the pursuit of the course objectives. During assessment cycles, these faculty implement the assessment vehicle and document the data, reporting back to the course coordinator.
- Curriculum Committee: This committee is responsible to review all significant course changes and vet them in the context of the overall curriculum for each degree program. The committee helps finalize adjustments to the course outlines and presents them to the full faculty for approval.
- Full-Time Faculty: The full-time faculty are responsible for approval of all course changes and to seek feedback and communicate changes from the part-time faculty. The full-time faculty also periodically review courses directly in faculty meetings and provide feedback to the course coordinator.

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 department is continuing to develop more formal and holistic approaches to assessment that we intend to institute over the next 2-3 years as our first cohort moves through the BArch program. These approaches include continuing the assessment of 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 online 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.

## DEPARTMENT OF ARCHITECTURAL TECHNOLOGY ASSESSMENT PROCESS



### Sample of Template for SPC Assignment and Assessment Method

ALIGNMENT OF COURSE LEARNING OBJECTIVES TO NAAB SPC  
ARCH1212 Design Foundations and Visual Studies

**Table 1 Primary Criteria** (the ~~strike through~~ is not covered in the current course objectives).

Current learning objectives	Relevant SPC	Applicable Assignments (T: team project, Q: Quiz, I: Individual assignment)	Potential Improvements	Quiz or Rubric Attached
1. Implement an iterative design process from problem identification, information gathering, solution generation and evaluation, implementation, presentation, and overall project evaluation. (Knowledge) 2. Incorporate design concepts and vocabulary into design process and presentations. (Knowledge) 5. Communicate ideas and information both verbally and through writing. (Gen Ed) 7. Produce orthographic, axonometric, perspective, and architectural vignette drawings both hand drawn and digitally. (Skill) 8. Demonstrate knowledge of graphic conventions and methods. (Knowledge and Skill) 9. Utilize analogue and digital media to create drawings and models. (Skill) 10. Incorporate color and materials into designs and presentations. (Skill)	<b>A.3 Ordering Systems</b> Ability to apply the fundamentals of both natural and formal ordering systems and the capacity of each to inform two- and three-dimensional design	I1: Project 01: Bridging surfaces I2: Project 02 Vertical stage	I3: add required written component describing project intentions and narrative: clear project statement.	

**Table 2 Secondary Criteria** (the underlined> is covered and the ~~strike through~~ is not covered in the current course objectives).

Current learning objectives	Relevant SPC	Applicable Assignments (T: team project, Q: Quiz, I: Individual assignment)	Potential Improvements	Quiz or Rubric Attached
4. Distinguish between media and determine the appropriate method and media required to complete a drawing or model. (Gen Ed) 5. Communicate ideas and information both verbally and through writing. (Gen Ed) 6. Develop and apply professional vocabulary. (Gen Ed) 7. Produce orthographic, axonometric, perspective, and architectural vignette drawings both hand drawn and digitally. (Skill) 8. Demonstrate knowledge of graphic conventions and methods. (Knowledge and Skill) 9. Utilize analogue and digital media to create drawings and models. (Skill)	<b>A.1 Professional communications Skills</b> Ability to write and speak effectively and use appropriate representational media both with peer and the general public	I1: Project 01: Bridging surfaces Final presentation I2: Project 02 Vertical stage Final Presentation		

## Section 2. Progress since the Previous Visit

Below is the 10point plan developed for the Plan for Achieving Initial Accreditation. Each point has the text from the initial plan followed by italicized text of our current activities and status of achieving the action item(s) for that point. The update includes a response to the panel comments noted in the ELIGIBILITY MEMORANDUM dated Dec 19, 2016 (attached below in the APPENDIX.)

### *Update to 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 BArch program in addition to our current programs. 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.

*PHYSICAL RESOURCES: At this time, we are coordinating with the administration on enrollment numbers and space needs to assess the timing for adding studios and lab spaces. We have formed a Facilities Committee that is documenting the existing conditions in greater detail and projecting enrollment for the BArch so that we can demonstrate the need for additional space clearly to the administration.*

*This study acknowledges the shortcomings of both our current use of computer labs for studio teaching and our second floor office space for failing to provide space to support and encourage the full range of faculty roles and responsibilities. This committee is also studying the layout, furniture, and technology in the rooms to best facilitate multimodal teaching. The administration requires a careful study of space requirements prior to allocation of additional space. Our Facilities Committee will complete its detailed study in the fall of 2017 and present to the Administration by the end of the fall semester.*

*FINANCIAL RESOURCES: The department relies on an annual Tech Fee fund to acquire, operate, and maintain digital equipment used by students and faculty. Major equipment expenses, greater than \$50k, are supported by capital funding applications to the college. Both revenue streams advance or maintain core functions of the department and are subject to review by senior administrators with a consequent timeline for approval. Faculty make applications to both funds in an effort to advance their digital specialties or research involving software and hardware. They are encouraged to pursue grant funding as these monies accelerate the timeline for acquiring specialized equipment and/or staffing for implementation. The NSF ATE grant represents an example of this one-time enhancement to the core program. Grant funding is recognized as supplemental rather than essential to the regular advancement of technology and instruction within the department.*

## **b. Securing Institutional Approvals**

At the date of this writing, we have strong institutional support for our BArch 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.

*To prepare for the BARCH and strengthen the existing degrees the Department of Architectural Technology has submitted two recent major curriculum changes. The proposals were passed by College Council on December 6, 2016 and February 28, 2017 titled "Major Curriculum Modification Proposal for Years One and Two". The most recent proposal was incorporated into the April 2017 Chancellor's report and went into force the fall semester 2017. These proposals served as the department as the New Program Concept Paper and the New Program Case Statement. Both documents are prerequisites to submitting a full proposal for a new degree program.*

*The full proposal will need to be submitted by Monday, October 1, 2017. This proposal will go to the college counsel curriculum committee. While under review by the curriculum committee the proposal will be reviewed in an open hearing to the college community. The proposal will next need to be approved by the full college counsel. The target approval meeting date is 3/27/2018 (the councils last meeting date is 5/8/2018 of the academic year). The proposal will next go to CUNY office of academic affairs and the New York State Department of Education for the review and approval process. The new curriculum can then be implemented as early as the spring semester 2019. For students of the entering class of fall 2017 to be eligible to apply for the program as planned on January 1, 2020 the program should be in place by the previous semester of fall 2019. These actions have us on track to meet our schedule as outlined in the Plan for Achieving Initial Accreditation.*

## **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 BArch 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).

*We are preparing for an intensive period of advisement this fall to orient students to the new curriculum and their potential eligibility for the new degree program. We have meetings scheduled to review and coordinate our advisement efforts.*

#### **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 BArch degree program. We will be able to operate the BArch 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.

*For the academic year of 2017-2018, we are maintaining our current faculty capacity and filling course assignments with current full-time or part-time faculty. We will re-*

*access faculty capacity as we prepare for the 2018-2019 academic year.*

#### **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 BTech degrees. This curriculum will follow the SPC requirements for the BArch degree. Students from this cohort can apply for the BArch degree program in the second semester of their second year. Students accepted into the BArch program start their third year in the Fall of 2019.

*We are continuing to follow this schedule, with the first eligible cohort entering in the fall of 2017. All students will follow the same curriculum path for the first two years. B Tech degree students and B Arch degree students will continue following the same curriculum path into the third year first semester. The curriculum path for B Arch students will diverge from the B Tech degree students starting in the second semester of the third year. This will allow for an admissions process that gives the maximum number of students the opportunity to qualify for the B Arch program. The distribution of SPCs reflects this approach, with the majority of SPCs tracked in third, fourth, and fifth year courses.*

#### **f. Projected Date for Awarding Degrees**

The first cohort to be awarded the BArch degree is projected to graduate in spring 2022.

*We are continuing to follow this schedule.*

#### **g. Plan for Developing and Implementing New Courses/Curriculum**

The department is in progress on the development of the new curriculum for the BArch 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 showing the specific NAAB SPC’s each course will address. Our full-time faculty will review our initial curriculum changes in Sept. 2016.

With confirmation of Initial Candidacy Eligibility,, 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.

*We are on track to meet our schedule as proposed in the Plan for Achieving Initial Accreditation. We have gained approval of our curriculum changes to years one and two and are implementing them this fall 2017. This includes a new course (Intro to Architecture), shifting our technology sequence back one semester, and adding credit hours and contact hours to our studio courses. We are finalizing our changes to the third and fourth year courses as well as developing the fifth year courses, and are preparing to submit the application for the new 5 year B Arch degree program this fall to College Council for review and approval. This keeps us on track to have all the pieces in place for the fall 2017 cohort to*

move into the B Arch degree program in their third year, fall 2019.

#### **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.

*Building on this recently acquired exposure, the department is re-assembling a departmental advisory board to assist with three strategic areas: fundraising, technical expertise and student employment. It is envisioned the advisory board will incorporate an expanded scope of stakeholders representing: the community, legal and zoning interests, futurists or technologists, environmentalists and preservationists. This composition will help insert the department into the multifarious conversations shaping the urban environment.*

*An additional element to the plan for expanding on external support is to develop relationship with colleges outside of NYC. Input from and exposure to external academic institutions has a particularly high impact on students who infrequently travel outside of the city limits. The study abroad program has already achieved initial success in taking students overseas. Funding of the students is a continual challenge and institutions that can host and provide instruction for the students are valuable partners. A consequence of the international partners is a critical enhancement of the camaraderie between students, enhancing their leadership and collaborative skills.*

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

Our department believes that we are ready for BArch 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 BArch program.

*We are proceeding with all the work necessary towards Initial Candidacy and Accreditation. As we proceed, we are building our knowledge base on the requirements to achieve accreditation and are continuing our research of existing NAAB programs to gain insights on successful operations of an accredited degree program. We will continue to work with NAAB and make adjustments and address critical issues as needed.*

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

The BArch degree program will be our third degree program. Students who graduate with the hope of the BArch 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 BTech 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 BTech degree graduates are already pursuing M. Arch. degrees around the country based on their strong portfolios and experience in our BTech 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.

*Many of the changes we are implementing are being evaluated for their general benefits to the existing degree programs as well as the benefits for the B Arch degree. In this way, we are able to proceed with our pursuit of the B Arch without undermining the AAS or BTECH degrees. We also continue to seek articulation agreements that will provide our graduates a pathway to a NAAB accredited degree if we are not able to offer one at City Tech.*

## Section 3. Compliance with the 2014 Conditions for Accreditation

### 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 **Section 4 Supplemental Materials** below.

Evaluations of full-time faculty are performed annually 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 each semester for all 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 complete 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. SETS scores are reviewed each semester by the departments' appointments committee so that teaching deficiencies can be continually addressed and corrected.

### 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. The 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. Many of our faculty have been featured or have contributed articles to this publication.
- *The faculty commons 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 online 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 which offers the opportunity to share a rich collegial learning experience with faculty members from other disciplines and to contribute to the success of this 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 re-envisioned 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 that provides workshops and individualized faculty professional development, to support the adoption of strategies in classroom instruction and assignment design to improve student reading comprehension.

All full-time faculty are licensed architects with regular requirements for continuing education to stay current in the profession. In addition, most faculty are actively practicing in New York City or further afield. A number of faculty serve on committees in professional organizations including the AIA New York chapter, where they help organize events for the architectural community in New York but also bring the latest discussions and information to the faculty and students. Some AIA New York chapter events have been hosted by City Tech, bringing experts to campus to discuss the important developments around the world in the design of the built environment. A number of financial resources are available to faculty to support professional development and scholarship. They are outlined in section 1.2.3 Financial Resources below.

## FACULTY SCHOLARSHIP AND CREATIVE WORK

The department's full-time faculty are increasingly balancing their teaching activities with their scholarship and creative activities. Many of our faculty are particularly engaged with publications, conferences, and other activities focused on the scholarship of teaching and learning, such as the presentation by Profs. Chin and Hernandez Felks at the National Conference on the Beginning Design Student, 2016 titled "1x1: Digital and Analog Skills." Profs. Bouratoglou and Dikigoropoulou developed a network of international critics to assist design students through virtual critiques throughout the semester and published their findings in the Athens Journal of Architecture in an article titled "Global Interactions into the traditional Design Studios through Blogs." Profs. Leonhardt, Aptekar, and Vaidya presented "Closing the Loop-Completing The Design/Analysis > Fabrication > Validation Cycle. The Impact of Digital Collaboration Tools on Interdisciplinary Teaching." at the International Associate of Technology, Education, and Development (IATED), EDULEARN 13 conference in Spain. Prof. Mishara's research includes academic service learning, the history of New York City, and innovation and collaboration in architectural practice.

Some faculty are conducting historical research, including Prof. King's research into Roebling's aqueducts of the D&H Canal, a topic he presented to the Society of Industrial Archaeology (SIA) annual conference in 2016. Prof Smith regularly publishes on historic preservation including her article "Design and Building Construction in the Provincial Setting: The Case of the South Carolina Plantation House" in the South Carolina Historical Magazine in 2015. Prof. Montgomery, working through the research lab *The Building History Project*, which he co-founded with Jeffrey Burden, PhD contributed to a monograph on the Bayt Farhi, an Ottoman era house in the Jewish quarter of Damascus that will be published this fall by the University of Oxford as part of the Manar al-Athar Monograph series. Prof. Beita Solano has published and presented at conferences on traditional Japanese design principles, most recently his presentation at the Architecture Design Conference at Mimar Sinan Fine Arts University, Istanbul. Prof. Duddy writes regularly on theoretical topics exploring perspective,

architecture and representation. He is also currently leading research with Profs. Montgomery and Chin on the development of the Brooklyn Civic Center.

A number of faculty have lead research projects focused on design-build, fabrication, advanced materials, building performance, and construction techniques. Profs. Aptekar and King lead the department's research and development of the City Tech entry into the US Department of Energy's Solar Decathlon Competition that placed well in the architecture and engineering categories in the 2015 competition. Prof. Anzalone has built twelve installations in nine different countries as part of his exploration of advanced science and technology in architectural practice. He publishes and presents at conferences regularly on this topic. Prof. Kim studies and researches building performance and has recently presented on the topic at the Passive and Low Energy Architecture Conference in Los Angeles, CA in 2016. Prof. Conzelmann has published critical reviews of contemporary New York City architecture as well as his research on Passive House design. Prof. Edwards specializes in the design of television broadcast facilities and has lead numerous prominent projects in this field, including work at Rockefeller Center for NBC, Madison Square Garden, and for PBS New York (Channel 13). Prof. Zagaroli focuses on providing technical assistance to not-for-profit organizations in developing neighborhoods, contributing to the rehabilitation of hundreds of residential units as well as several community facilities.

Prof. Azaroff is a leader in research of resiliency and design for risk and reconstruction. He has published numerous articles, presented at TEDxNYIT, and contributed to government reports on the topic while also leading the New York AIA Chapter's recovery efforts after Superstorm Sandy. In addition to his award winning international architectural practice, Prof. Maldonado has lead multiple efforts for critical projects in New York City, including the successful effort to obtain Landmark District Designation for Tudor City. Prof. Maldonado recently received the Peter Cooper Public Service Award for Exemplary Service to the Public (2017.)

More detailed information regarding faculty scholarly and creative activity can be found in through the link to the Faculty Vitae in the Supplemental Materials section below.

## 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, Professor Ken Conzelmann. He maintains a database of student and graduate resumes and employer contacts.

Prof. Barbara Mishara, AIA serves as the Architect Licensing Advisor of our department. She has attended the national conference and organizes student workshops and advisement sessions to guide students through their options for working towards licensure in New York State. Prof. Mishara maintains contact with the personnel at the New York State Department of Education to ensure a dialogue that benefits our students and keeps her advisement accurate and up to date.

## 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 office suite of the dean of the School of Technology and Design occupies the remaining 13%, or 1,951 SF. 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 and a fabrication space with CNC mills located on the first floor.

Voorhees Hall underwent a \$38 million renovation funded by CUNY-Wide Condition Assessment Funds. Completed in spring 2013, work included a new glass façade with added windows to increase natural lighting and improvements to the entrance lobby. The project, completed under budget was managed by the Dormitory Authority of the State of New York (DASNY). 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.

The Department of Architectural Technology currently serves 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 BArch 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.

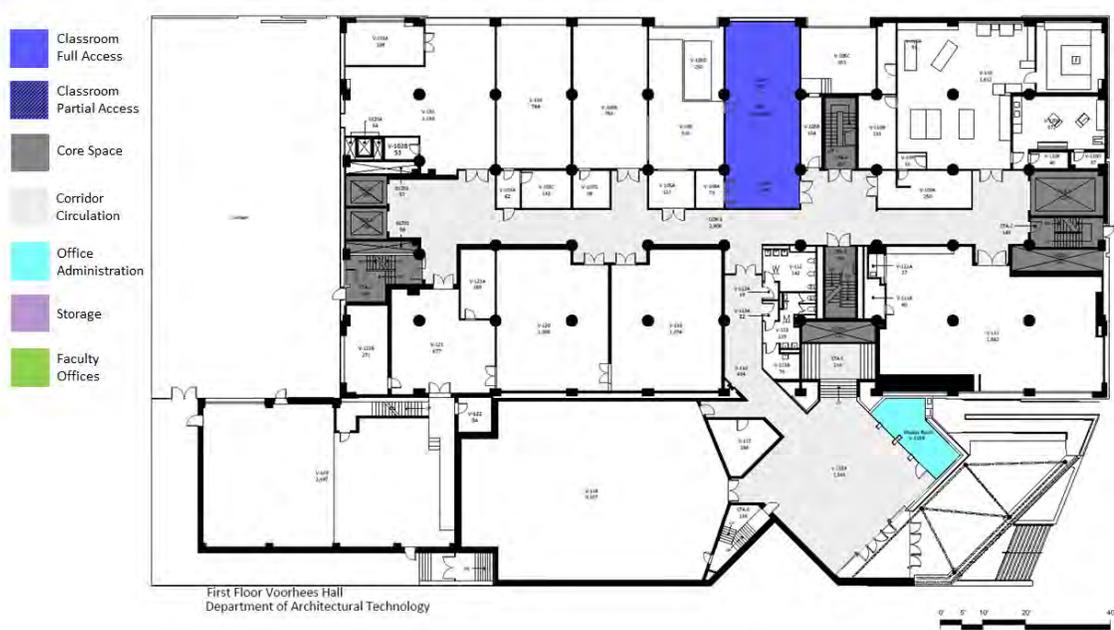
### **Current Space Allocation:**

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).

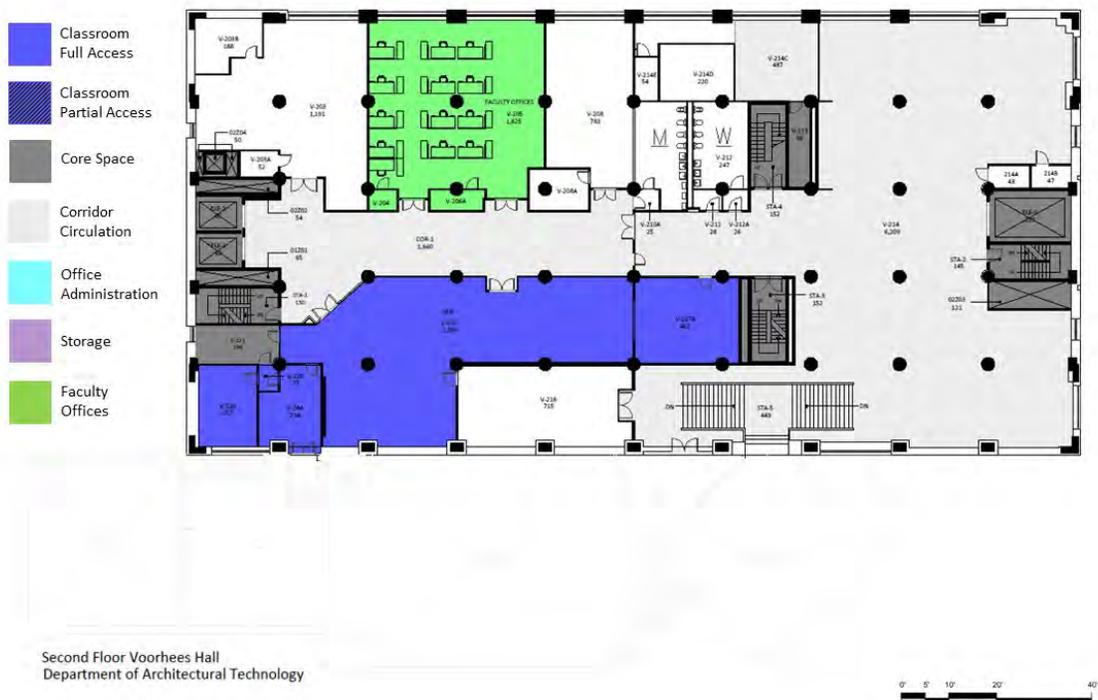
We have conducted a preliminary review of our current physical resources ability to accommodate the BArch program. Initial analysis reveals the need for four new studios (hybrid) as well as a new computer lab and a wood shop. To fully assess our physical needs we look to form a departmental facilities team to study our long term space needs and to work with the colleges' facilities department to work on implementation of our program needs.

Floor Plans<sup>12</sup>

First Floor

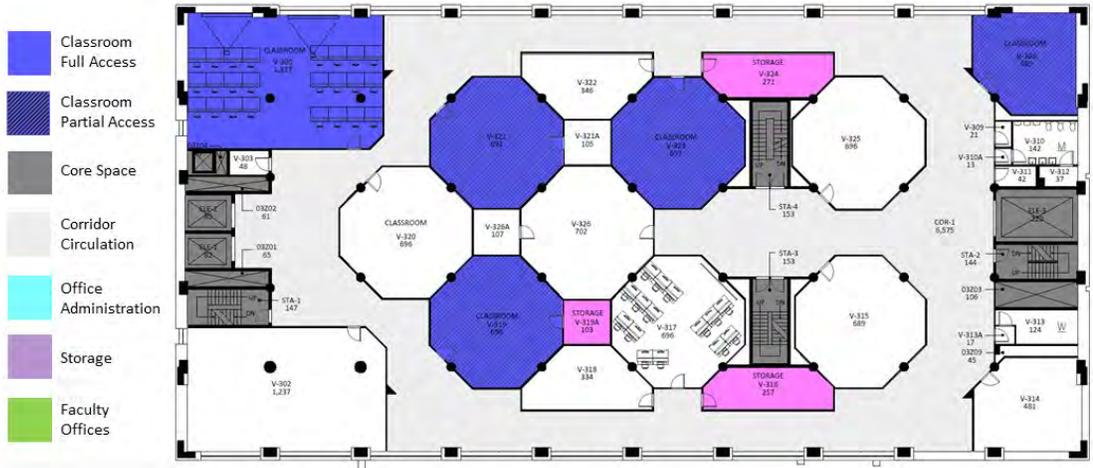


Second Floor



<sup>12</sup> Link to PDF of Floor Plans: <https://www.dropbox.com/s/efrhphte9vyok5/NYCT-Voorhees%20Arch%20Floor%20Plans.pdf?dl=0>

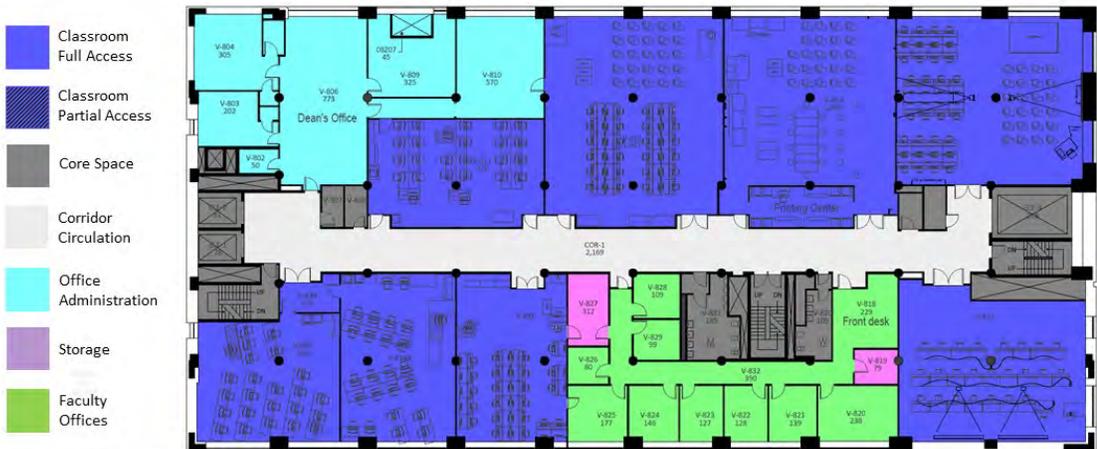
### Third Floor



Third Floor Voorhees Hall  
Department of Architectural Technology



### Fourth Floor



Fourth Floor Voorhees Hall  
Department of Architectural Technology



## 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
<b>Total New Classrooms</b>	<b>4</b>	<b>0</b>	<b>1</b>	<b>0</b>

In addition, scholarly research 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"<sup>13</sup>, 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.

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 needs should be addressed to improve departmental communication and more efficient and effective access for students during advisement periods. At present faculty offices are spread across several floors and locations on both the 8<sup>th</sup> and 2<sup>nd</sup> floors. We seek to both improve the quality of office space and to consolidate office spaces to provide better access to our 8<sup>th</sup> floor administrative center and to locate these closer to our classrooms. We continue to work with the support of the college administration in this effort.

<sup>13</sup>See the Buildings and Grounds Report on Classrooms and Learning here:  
[https://www.dropbox.com/s/3jp8ackma1xt6q0/20160819\\_1Reconsidering%20the%20Classroom%20at%20City%20Tech.pdf?dl=0](https://www.dropbox.com/s/3jp8ackma1xt6q0/20160819_1Reconsidering%20the%20Classroom%20at%20City%20Tech.pdf?dl=0)

### 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.

The department relies on an annual Tech Fee fund to acquire, operate, and maintain digital equipment used by students and faculty. Major equipment expenses, greater than \$50k, are supported by capital funding applications to the college. Both revenue streams advance or maintain core functions of the department and are subject to review by senior administrators with a consequent timeline for approval. Faculty make applications to both funds in an effort to advance their digital specialties or research involving software and hardware. They are encouraged to pursue grant funding as these monies accelerate the timeline for acquiring specialized equipment and/or staffing for implementation. The NSF ATE grant represents an example of this one-time enhancement to the core program. Grant funding is recognized as supplemental rather than essential to the regular advancement of technology and instruction within the department.

The Department of Architectural Technology continues to seek 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 continues to offer the department important feedback and support continues 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 looks to directly track our 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.

The college provides support for students and faculty by providing or facilitating scholarship, fellowship, and grant funding.

## STUDENT SUPPORT

### OFFICE OF SCHOLARSHIPS & RESIDENCY SERVICES<sup>14</sup>

The college provides scholarships and grants for eligible students based on academic merit and/or financial need. The college's Office of Scholarships & Residency Services provides a list of scholarships and grants available to student and the process and guidance to apply.

### EMERGING SCHOLARS PROGRAM<sup>15</sup>

Provides training and a stipend to students who conduct research with a faculty advisor.

## FACULTY SUPPORT

### NEW FACULTY RELEASE TIME

All new full-time faculty are granted a full year of release time, to be used periodically throughout the first 5 years on the faculty. This time facilitates professional development and scholarly activity as the new faculty member works towards tenure and promotion.

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<sup>14</sup> Office of Scholarships and Residency Services Link: <http://www.citytech.cuny.edu/scholarships/scholarships.aspx>

<sup>15</sup> Emerging Scholars Program Link: <http://www.citytech.cuny.edu/research/scholars-program.aspx>

#### OFFICE OF SPONSORED PROGRAMS<sup>16</sup>

Provides support for grant applications. The office maintains a rich website providing guidance on potential funding sources, grant writing, and the application process within the college. The office also hosts periodic workshops on grant writing.

#### CUNY INTERNAL FUNDING<sup>17</sup>

The university provides faculty grants that support university initiatives as well as faculty research, including Interdisciplinary Research, Undergraduate Research (Research in the Classroom), and Faculty Travel for Research.

#### PSC-CUNY RESEARCH AWARD PROGRAM<sup>18</sup>

The Professional Staff Congress and the University use this funding to “support activities in the creative arts and all academic relevant research.” This funding also supports curriculum development and improvement in teaching.

## 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 range 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, ebrary, GreenFILE, Humanities

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<sup>16</sup> Office of Sponsored Programs Link: <https://facultycommons.citytech.cuny.edu/sponsored-programs/>

<sup>17</sup> CUNY Internal Funding Link: <http://www2.cuny.edu/research/faculty-resources/internal-funding/>

<sup>18</sup> PSC-CUNY Research Award Program Link: <https://www.rfcuny.org/rfwebsite/research/content.aspx?catID=2930>

Source, 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<sup>19</sup>

City Tech is one of seventeen senior colleges of the City University of New York. CUNY is governed by a Board of Trustees that 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 and has served as CUNY Vice Chancellor for Academic Program Planning. 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

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<sup>19</sup> Follow this link for charts illustrating structure:  
<https://www.dropbox.com/sh/2a830v6voj6w5x5/AAAkD7KQQRnBNtMkuHABNJzWa?dl=0>

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.

## II.1.1 STUDENT PERFORMANCE CRITERIA

The chart below documents the current courses responsible for the demonstration of the student understanding and ability of the required knowledge and skills for each graduate. 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

The first chart is an overall matrix.  
The following charts zoom in on the realms for improved readability.<sup>20</sup>

STUDENT PERFORMANCE CRITERIA MATRIX New York City College of Technology Department of Architectural Technology			Critical Thinking and Representation								Building Practices, Technical Skills & Knowledge										Integrated Architectural Solutions			Professional Practice				
Key to Terms			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				
A	Ability		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 + Assembl	Bldg Mtls + Assembl	Bldg Service Systems	Financial Considerations	Research	Evals + Decision Making	Integrative Design	Stakeholder Roles in Arch	Project Management	Business Practices	Legal Responsibilities	Professional Conduct
U	Understanding																											
	Introduce																											
	Reinforce																											
M	Master (Assess)		REALM A								REALM B										REALM C			REALM D				
Course No	Course Name		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 1112	FOUNDATIONS I																										
	ARCH 1101	INTRO TO ARCH																										
	ARCH 1212	FOUNDATIONS II																										
YEAR 2	ARCH 1231	ARCH 1231- BLDG TECH I																										
	ARCH 1250	SITE PLANNING																										
	ARCH 1121	WORLD ARCH																										
YEAR 3	ARCH 2312	ARCH DESIGN III																										
	ARCH 2331	BUILDING TECH II																										
	ARCH 2361	ARCH 2361- STRUCTURES I																										
YEAR 4	ARCH 2321	CONTEMPORARY ARCH																										
	ARCH 2412	ARCH DESIGN IV																										
	ARCH 2431	BUILDING TECH III																										
YEAR 5	ARCH 2481	ARCH 2481- STRUCTURES II																										
	ARCH 3512	ARCH DESIGN V																										
	ARCH 3531	BUILDING TECH IV																										
YEAR 6	ARCH 3522	HISTORY NYC ARCH																										
	ARCH 3612	ARCH DESIGN VI																										
	ARCH 3631	BLDG SYSTEMS																										
YEAR 7	ARCH 4712	ARCH DESIGN VII																										
	ARCH 4761	STRUCTURES III																										
	ARCH 4722	HISTORY/THEORY																										
YEAR 8	ARCH 4812	ARCH DESIGN VIII																										
	ARCH 4861	PROF PRACTICE																										
	ARCH 4822	HISTORY/THEORY																										
YEAR 9	ARCH 5112	ARCH DESIGN IX																										
	ARCH 5212	STUDIO X																										

<sup>20</sup> Follow this link for pdf of full SPC matrix:  
[https://www.dropbox.com/s/96lbbxzs7dg3l2/BArch\\_20170903%20NAAB%20SPC%20Full%20Chart.pdf?dl=0](https://www.dropbox.com/s/96lbbxzs7dg3l2/BArch_20170903%20NAAB%20SPC%20Full%20Chart.pdf?dl=0)

### Realm A: Critical Thinking and Representation

STUDENT PERFORMANCE CRITERIA MATRIX New York City College of Technology Department of Architectural Technology			Critical Thinking and Representation																			
<table border="1"> <tr> <th colspan="2">Key to Terms</th> </tr> <tr> <td>A</td> <td>Ability</td> </tr> <tr> <td>U</td> <td>Understanding</td> </tr> <tr> <td></td> <td>Introduce</td> </tr> <tr> <td></td> <td>Reinforce</td> </tr> <tr> <td>M</td> <td>Master (Assess)</td> </tr> </table>			Key to Terms		A	Ability	U	Understanding		Introduce		Reinforce	M	Master (Assess)	A	A	A	A	A	A	U	U
			Key to Terms																			
A	Ability																					
U	Understanding																					
	Introduce																					
	Reinforce																					
M	Master (Assess)																					
			Prof Comm Skills	Design Thinking Skills	Investigative Skills	Arch Design Skills	Ordering Systems	Use of Precedents	History and Culture	Cultural Diversity												
			REALM A																			
			A.1	A.2	A.3	A.4	A.5	A.6	A.7	A.8												
YEAR 1	1	ARCH 1112	FOUNDATIONS I																			
		ARCH 1101	INTRO TO ARCH																			
	2	ARCH 1212	FOUNDATIONS II					M														
		ARCH 1231	ARCH 1231- BLDG TECH I																			
		ARCH 1250	SITE PLANNING																			
	ARCH 1121	WORLD ARCH																				
YEAR 2	3	ARCH 2312	ARCH DESIGN III																			
		ARCH 2331	BUILDING TECH II																			
		ARCH 2381	ARCH 2381- STRUCTURES I																			
	4	ARCH 2321	CONTEMPORARY ARCH																			
		ARCH 2412	ARCH DESIGN IV																			
		ARCH 2431	BUILDING TECH III																			
	ARCH 2481	ARCH 2481- STRUCTURES II																				
YEAR 3	5	ARCH 3512	ARCH DESIGN V		M																	
		ARCH 3531	BUILDING TECH IV																			
	6	ARCH 3522	HISTORY NYC ARCH																			
		ARCH 3612	ARCH DESIGN VI																			
		ARCH 3631	BLDG SYSTEMS																			
YEAR 4	7	ARCH 4712	ARCH DESIGN VII					M														
		ARCH 4781	STRUCTURES III																			
	8	ARCH 4722	HISTORY/ THEORY						M													
		ARCH 4812	ARCH DESIGN VIII			M				M												
		ARCH 4861	PROF PRACTICE																			
	ARCH 4822	HISTORY/THEORY																				
YEAR	9	ARCH 5112	ARCH DESIGN IX																			
	10	ARCH 5212	STUDIO X	M																		

## Realm B: Building Practices, Technical Skills & Knowledge

STUDENT PERFORMANCE CRITERIA MATRIX New York City College of Technology Department of Architectural Technology			Building Practices, Technical Skills & Knowledge																					
<table border="1"> <tr><th colspan="2">Key to Terms</th></tr> <tr><td>A</td><td>Ability</td></tr> <tr><td>U</td><td>Understanding</td></tr> <tr><td></td><td>Introduce</td></tr> <tr><td></td><td>Reinforce</td></tr> <tr><td>M</td><td>Master (Assess)</td></tr> </table>			Key to Terms		A	Ability	U	Understanding		Introduce		Reinforce	M	Master (Assess)	A	A	A	A	A	A	U	U	U	U
			Key to Terms																					
			A	Ability																				
			U	Understanding																				
	Introduce																							
	Reinforce																							
M	Master (Assess)																							
Pre-Design	Site Design	Codes and Regulations	Technical Documentation	Structural Systems	Environmental Systems	Bldg Env Sys + Assmbis	Bldg Mtrls + Assmbis	Bldg Services Systems	Financial Considerations															
REALM B																								
Course No.	Course Name	B.1	B.2	B.3	B.4	B.5	B.6	B.7	B.8	B.9	B.10													
YEAR 1	1	ARCH 1112 FOUNDATIONS I																						
		ARCH 1101 INTRO TO ARCH																						
	2	ARCH 1212 FOUNDATIONS II																						
		ARCH 1231 ARCH 1231- BLDG TECH I																						
		ARCH 1250 SITE PLANNING																						
	ARCH 1121 WORLD ARCH																							
YEAR 2	3	ARCH 2312 ARCH DESIGN III																						
		ARCH 2331 BUILDING TECH II																						
		ARCH 2381 ARCH 2381- STRUCTURES I																						
		ARCH 2321 CONTEMPORARY ARCH																						
	4	ARCH 2412 ARCH DESIGN IV																						
		ARCH 2431 BUILDING TECH III																						
ARCH 2481 ARCH 2481- STRUCTURES II																								
YEAR 3	5	ARCH 3512 ARCH DESIGN V																						
		ARCH 3531 BUILDING TECH IV				M			M															
		ARCH 3522 HISTORY NYC ARCH																						
	6	ARCH 3612 ARCH DESIGN VI	M	M																				
ARCH 3631 BLDG SYSTEMS										M														
YEAR 4	7	ARCH 4712 ARCH DESIGN VII																						
		ARCH 4781 STRUCTURES III					M																	
		ARCH 4722 HISTORY/ THEORY																						
	8	ARCH 4812 ARCH DESIGN VIII																						
		ARCH 4861 PROF PRACTICE										M												
	ARCH 4822 HISTORY/THEORY																							
YEAR 9-10	9	ARCH 5112 ARCH DESIGN IX	M																					
	10	ARCH 5212 STUDIO X						M	M															

Realm C: Integrated Architectural Solutions

Realm D: Professional Practice

STUDENT PERFORMANCE CRITERIA MATRIX New York City College of Technology Department of Architectural Technology			Integrated Architectural Solutions			Professional Practice																
<table border="1"> <tr> <th colspan="2">Key to Terms</th> </tr> <tr> <td>A</td> <td>Ability</td> </tr> <tr> <td>U</td> <td>Understanding</td> </tr> <tr> <td></td> <td>Introduce</td> </tr> <tr> <td></td> <td>Reinforce</td> </tr> <tr> <td>M</td> <td>Master (Assess)</td> </tr> </table>			Key to Terms		A	Ability	U	Understanding		Introduce		Reinforce	M	Master (Assess)	U	A	A	U	U	U	U	U
			Key to Terms																			
A	Ability																					
U	Understanding																					
	Introduce																					
	Reinforce																					
M	Master (Assess)																					
			Research	Evals + Decision Making	Integrative Design	Stakeholder Roles in Arch	Project Management	Business Practices	Legal Responsibilities	Professional Conduct												
			REALM C			REALM D																
			C.1	C.2	C.3	D.1	D.2	D.3	D.4	D.5												
YEAR 1	1	ARCH 1112	FOUNDATIONS I																			
		ARCH 1101	INTRO TO ARCH																			
	2	ARCH 1212	FOUNDATIONS II																			
		ARCH 1231	ARCH 1231- BLDG TECH I																			
		ARCH 1250	SITE PLANNING																			
	ARCH 1121	WORLD ARCH																				
YEAR 2	3	ARCH 2312	ARCH DESIGN III																			
		ARCH 2331	BUILDING TECH II																			
		ARCH 2381	ARCH 2381- STRUCTURES I																			
	4	ARCH 2321	CONTEMPORARY ARCH																			
		ARCH 2412	ARCH DESIGN IV																			
		ARCH 2431	BUILDING TECH III																			
	ARCH 2481	ARCH 2481- STRUCTURES II																				
YEAR 3	5	ARCH 3512	ARCH DESIGN V																			
		ARCH 3531	BUILDING TECH IV																			
	6	ARCH 3522	HISTORY NYC ARCH																			
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	ARCH 3631	BLDG SYSTEMS																				
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		ARCH 4781	STRUCTURES III																			
		ARCH 4722	HISTORY/ THEORY																			
	8	ARCH 4812	ARCH DESIGN VIII																			
		ARCH 4861	PROF PRACTICE				M	M	M	M	M											
	ARCH 4822	HISTORY/THEORY																				
YEAR	9	ARCH 5112	ARCH DESIGN IX	M	M																	
	10	ARCH 5212	STUDIO X			M																

## REALM C PEDAGOGY AND METHODOLOGY

**C.1 – Research** (“Understanding of the theoretical and applied research methodologies and practices used during the design process.”): Integration between theoretical and applied concepts in architectural practice are reinforced through the coordination of the Design Sequence and the Building Technologies sequence in the first three years of the program. This connection is supported through a parallel study of the history of architectural practice and technology through related courses in the History/Theory Sequence. Through the fourth year of the program, students will work on faculty designed projects that are meant to provide a study space for the students to research programmatic, environmental, material, sociological and other aspects of architectural theory and practice. Finally, the students are expected to display their mastery in research in ARCH 5112, the two semester Thesis Studio, where students will research a site, program, culture and technological theme of their own choosing under faculty advisement, and propose a project that provides possible solutions to the problem addressed. Students produce a thesis book that documents both the thesis research and its architectural products.

**C.2 – Integrative Evaluations and Decision-Making Design Process** (“Ability to demonstrate the skills associated with making integrated decisions across multiple systems and variables in the completion of a design project. This demonstration includes problem identification, setting evaluative criteria, analyzing solutions, and predicting the effectiveness of implementation.”): The entire curriculum builds upon a philosophy of the integration of technology and design, at the early stages with its collaboration with the Bachelors of Technology program, as well as at the later stages where students will study and propose integrated solutions to aesthetic, scientific, environmental and technological problems. The capstone project of the Bachelors of Architecture curriculum is the thesis project conducted in the fifth year through two semesters of ARCH 5112. At this point the students would have completed the Technical System Integration Studio course ARCH 4812, which will prepare them to propose integrated solutions to their own thesis proposals. The thesis project demonstrates skills in identifying problems, assessing solutions, evaluating and assessing possible variables, setting evaluative criteria, and most importantly in gauging the possibility of producing a synthetic proposal that not only maintains the conceptual goals of the design, but also confirms its technical potential and constructability within economic, social and cultural envelopes. Evidence of this criterion will be found in the presentation drawings, and the accompanying thesis book.

**C.3 – Integrative Design** (“Ability to make design decisions within a complex architectural project while demonstrating broad integration and consideration of environmental stewardship, technical documentation, accessibility, site conditions, life safety, environmental systems, structural systems, and building envelope systems and assemblies.”): The curriculum builds upon a philosophy of integrative design that begins within the foundational classes. The series of courses Building Technology 1 through 4, along with the Environmental Systems course, provide a five course sequence intended to introduce the student to how coordination of design, science and technology are critical to architectural practice. The students master integrative design in the studio courses that follow these technical courses, specifically ARCH 4812, Studio 8, and ARCH 5112, a two semester Thesis. In Studio 8 a single, large scale building is designed specifically incorporating the various systems as the final capstone design project of both the BArch and

BTech degree. The Thesis, while of flexible program and scale, will be required to incorporate all aspects of integrative design into the project. Evidence of this criterion will be found in the presentation drawings, and the technical documentation produced for their Thesis book, which will document each of the “criteria” listed in Integrative Design.

## METHODOLOGY FOR ASSESSING STUDENT WORK

Students will be assessed in their ability to master the SPCs in each course based on a number of parameters specific to the course content and format, such as: participation, presentation, written work, drawings and models, design solution, and so on. Each parameter in each course will be given a percentage of the final grade, which is indicated on the course descriptions in the APR Report and will be in the course syllabus distributed to students. Assessment percentages of each course will be designed such as to focus on primary goals of achieving mastery in the specific SPC category, along with secondary and soft skills required to support the mastery of the category. It will be considered a failure if the students achieve a total percentage in the course of below 70%, and will require that the student repeat the course. For purposes of assessing work to be reviewed for accreditation, we would consider a high pass to be a student that has achieved over 90% of the parameters, and corresponds to a grade of A as indicated on their transcript. Students will be considered low passing if they have achieved below 80%, but have not failed, and corresponds to a grade of C as indicated on their transcript.

### 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.

Follow this link for Institutional Accreditation documentation:

[https://www.msche.org/institutions\\_view.asp?idinstitution=67](https://www.msche.org/institutions_view.asp?idinstitution=67)

### 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 four-year BTech 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 BTech 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 and a more intensive technological focused sequence.

As part of this redevelopment of our AAS and BTech 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 NAAB standards. The result of this round of development is a curriculum that addresses a broad range of 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
BTech initial	21	34	8	0	6	6	75
BTech current (Design Intense)	33	31	8	0	3	9	84
BTech current (Tech Intense)	23	41	8	0	3	12	87
BArch	56*	29	10	6	3	12	116

\*BArch Design Studios with emphasis on Integrative Design

## Bachelor of Architecture Curriculum Overview<sup>21</sup>:

BARCH PROGRAM													Credits by Type	
Running Credits Totals													160	BArch Total
SEMESTER 1	SEMESTER 2	SEMESTER 3	SEMESTER 4	SEMESTER 5	Winter	SEMESTER 6	SEMESTER 7	SEMESTER 8	SEMESTER 9	SEMESTER 10				
14 23 hrs	16 24 hrs	16 23 hrs	18 25 hrs	17 23 hrs		17 21 hrs	17 21 hrs	17 21 hrs	17 21 hrs	11 15 hrs				
<b>REQUIRED COURSES IN ARCHITECTURAL TECHNOLOGY</b>													113	BArch discipline
ARCH 1112 Foundations I	ARCH 1212* Foundations II	ARCH 2112 Architectural Design III Honor / Community Center	ARCH 2412 Architectural Design IV Institutional-Commercial	ARCH 3512* Architectural Design V Retail		ARCH 3612* Architectural Design VI Collective Housing	ARCH 4712* Architectural Design VII Urban Planning / Cultural	ARCH 4812* Architectural Design VIII Integrated Large / Cultural	ARCH 5112* Architectural Design IX Thesis Research & Analysis / Schematic Design	ARCH 5212* Architectural Design X Thesis Design Development			50	Design
ARCH 1101 Intro to Arch	ARCH 1181 Building Tech I Wood	ARCH 2331 Building Tech II Wood/Masonry	ARCH 2431 Building Tech III Steel (Steel)	ARCH 3311* Building Tech IV Concrete (Steel)		ARCH 3631* Building Systems		ARCH 4811* Professional Practice					3	Prof Practice
	ARCH 1290 Site Planning	ARCH 2391 Structures I (Statics & Strength)	ARCH 3481 Structures II Wood & Steel					ARCH 4791* Structures III Cable & Systems					18	Technical
	ARCH 1221 World Architecture	ARCH 2321 Contemporary Architecture		ARCH 3521 History of NYC				ARCH 4722* History/Theory I	ARCH 4822 History/Theory II	ARCH ELECTIVE			2	Intra
			ARCH ELECTIVE	RESTRICTED ELECTIVE		ARCH ELECTIVE				ARCH ELECTIVE	ARCH ELECTIVE		8	Structures
													14	History/Theory
													18	Electives
<b>BARCH Program Administration, Advisement and Application Timeline</b>														
Prerequisite Completion prior to enrollment		Cohort Advisement 1		Cohort Advisement 2	BARCH Application Opens Oct-Jan 1	BARCH Portfolio & Application Review	BARCH Acceptance Letters	Register for BARCH Classes	BTECH/BARCH Graduate School Advisement					
Service Indicator		0		0	0	0								
<b>CORE</b>														
ENG 1101		CORE	CORE				CORE	CORE	Advanced Liberal Arts	CORE	CORE			
MATH 1275	PHYSICS			ENG 1121			Speech/Oral Communication	Interdisciplinary	Advanced Liberal Arts	CORE				
<b>FLEXIBLE CORE (LIBERAL ARTS) 47 credits, 45 required by NAAB, 42 required by City Tech</b> 47 credits (liberal arts) + 113 credits (architecture) = 160 credits. 150 credits are required by NAAB. In New York State all the undergraduate architecture programs have 160 credits.														
ARCH XXXX* Denotes course with ITC														

As we launch the BArch degree program we build upon the strong foundation of our BTech program. Our assessment of the current curriculum identifies the need to reinforce the design studio as the core of our student education. Our BArch curriculum reflects this need, with a significant increase in the allocation of credit hours for design courses with continued emphasis on the integration of technical knowledge. This emphasis will provide our commuter based student body with more interaction with design faculty as well as their classmates, and a greater degree of guidance in their studio assignments.

The second major goal of the BArch curriculum is to develop a coordinated history/theory sequence. This sequence begins with a new introductory (ARCH 1101), course that looks to better prepare our students for both our design and technical sequence of courses as well as to orient incoming students to the profession of architecture. As with much of our curriculum this place-based course looks to take advantage of New York City as a learning laboratory.

The third focus is to support integrative learning through a stronger alignment of our design and building technology sequences. We have shifted the start of the technical sequence back one semester to begin in the second semester of the first year so that topics covered by the technical sequence are more in line with topics covered in the design sequence.

The BTech and BArch programs will continue to complement each other, the former working towards a high level of technological expertise and the latter preparing graduates for

<sup>21</sup> Follow this link for higher resolution curriculum chart: [https://www.dropbox.com/s/x45d6v0tiae1tuf/B\\_Arch\\_20170903%20Program%20Chart.pdf?dl=0](https://www.dropbox.com/s/x45d6v0tiae1tuf/B_Arch_20170903%20Program%20Chart.pdf?dl=0)

leadership in design, technical proficiency, administration, and management.

We have developed outlines for all of the courses in the BArch program that are included in the supplemental materials section of this document. Development of all courses that are part of the first two years of the BArch program (taken as an AAS student) have been completed and approved by our college council and the first cohort enrolled into this new sequence entered our program in the fall of 2017.

At this time we are not offering specific minors or concentrations, but our elective offerings will allow students to advance their skills in specific focal areas, such as fabrication, building performance, advanced detailing, or historic preservation.

Each sequence (Design, Technical, History/Theory, Structures) of the BArch program will be directed by a faculty team that will steer the sequence, coordinate faculty assignments for each course, and will oversee adjustments to course content with the guidance of the departmental curriculum and appointments committees. 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 hiring. The chair is responsible for teaching assignments. As part of the appointment process the committee members consult with course coordinators, review faculty teaching observations conducted by full time faculty and SETS (Student Evaluations of Teaching) scores for each instructor. We look to find the best match between faculty and professional experience, the requirements of our curriculum, the needs of particular courses and the level of our students.

## 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.

## Advisement and Application Timeline

Through the development of a more structured advisement timeline we are looking to provide all of our students (AAS, BTech & BArch) with uniform and regular advisement and guidance. These guidance and advisement sessions will be offered as large group sessions that occur at multiple times during both the day and evening sessions to accommodate the schedules of our student body. We are looking to use an existing mechanism called a “service indicator” that will allow us to track student attendance. This sequence has been mapped out on our “Bachelor of Architecture Curriculum Overview” (see chart).

This begins with freshman orientation which takes place the summer prior to entry into the first semester of the AAS program. By the end of the first year all students will be required to attend group cohort advisement session #1. The proposed theme of this session would be “Is architecture right for me?” It is intended to help students make an informed decision about their future in the program and in architecture as a proposed career as well as to reinforce information covered in the freshman orientation.

By the end of the second year all students will be required to attend advisement session #2 whose theme would be “BTech or BArch?” This session it to help students make an informed decision about their choice of degree program and how to prepare their applications and portfolios for the BArch program. Additional topics would include options in the BTech program, and review of accreditation, licensure and options for graduate school.

Deadline for initial application to the BArch program would be January 1 of year 3 after students will have completed 60-80 credits. Applications would include a written statement, letters of recommendation and a portfolio that demonstrates both technical and design expertise. Review applications would occur in the winter session with letters of acceptance sent out by early spring. Registration for year 4, BArch classes would open late spring of year 3 (semester 5). Late applications into the program would continue until the fall of year 4.

During year 4, a group graduate school advisement session would occur timed to align with the colleges’ annual graduate school fair and during year 5 a group cohort advisement session for BArch students would focus on licensure, career and graduate school.

Our BArch program will continue to align with our goals of maintaining an inclusive open enrollment policy in line with enrollment into our AAS program. While we expect the majority of our BArch students to enter from our AAS program we are looking to identify the appropriate mechanism to evaluate potential candidates who transfer in from other programs. We do however believe that such candidates would need to enter our program as of the 4<sup>th</sup> year and that there would be no direct entry into the 5<sup>th</sup> year.

A committee of full time faculty will make all evaluations and decisions to admission into the BArch program. The admissions process may consider the following criteria:

- GPA overall and in architectural studies.
- Portfolio review for demonstration of both design and technical knowledge.
- We will look to evaluate a range of student development including creative thinking, technical expertise and the expression of a student's unique qualities. This may include but will not be limited to creative writing, visual expressions through graphic or video form, fabrication talent or demonstrations of digital/computational competency. Rather than limit this review to a traditional portfolio submission, the department endeavors to recognize that the display of talent skill and interest may be expressed in other non-traditional forms.
- A written letter of intent
- Letters of recommendation from instructors and/or employers.
- Interviews as required of the candidate, conducted online or in person.

In addition to the criteria outlined above applications from transfer students, graduates of the existing BTech program or students currently enrolled in the Bachelor of Technology program will include but not be limited to:

- Review of Official College Transcripts
- College cumulative GPA of B or better (to be confirmed)
- Evaluation of transfer credits for those transferring from other programs.
- Evaluation of student work to determine their ability to demonstrate competence in relevant SPC learning criteria.
- For graduates of our BTech degree program evaluation of professional work to determine their ability to demonstrate competence in relevant SPC learning criteria may be required. If accepted each candidate would be reviewed to determine which coursework may be required prior to acceptance into the 5<sup>th</sup> year.

## 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 that 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. All NAAB related information will be added and made available to the public only after our program achieves Candidacy status.

### 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](http://www.aia.org)

[www.aias.org](http://www.aias.org)

[www.acsa-arch.org](http://www.acsa-arch.org)

<https://www.ncarb.org>

<http://archcareers.blogspot.com>

*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.

## II.4.5 ARE PASS RATES

*Not Applicable for APR-IC*

## II.4.6 ADMISSION AND ADVISING

Admission requirements to the program at CITY TECH are as follows:

Associate Degree Programs:

High school diploma with minimum of a 70 average or a minimum score of 2700 on the GED/HSE

Bachelor's Degree Programs:

High school diploma with a 75 or higher average or a minimum score of 2750 on the GED/HSE exam. Incoming students are required to take the CUNY proficiency exam in English and Math.

Students are exempt from this test if they have minimum scores of 480 (Verbal) / 500 (Math) in SAT; or 20 (English) / 21 (Math) in ACT; or 75 (English) / 80 (Math) in New York State Regents examinations.

Transfer Students Requirements:

Minimum GPA of 2.0; Prove college level competency in English and Mathematics;

A grade of a C or better in non-remedial courses from an accredited college or university or from appropriate test scores from the SAT, ACT, NYS Regents, or CUNY Proficiency Examinations; Transcripts from II post-secondary institutions attended; Proof of High School Graduation, or HSE0;

If applicable, proof of any name change; Proof of immunization.

Complete admission requirements can be found online at:

<http://www.citytech.cuny.edu/admissions/requirement.aspx>

## II.4.7 STUDENT FINANCIAL INFORMATION

Each college of The City University of New York is required to receive from each admitted student a non-refundable tuition deposit of \$100 before the student will be permitted to register. Veterans, Special Programs students (including SEEK) and students whose Free Application for Federal Student Aid (FAFSA) shows an effective family contribution (EFC) of \$3,000 or less will be exempt from the deposit requirement.

Resident Students (These new rates are effective for the Fall 2015) Full-time matriculated: \$3,165 per semester

Part-time matriculated: \$275 per credit

All Non-degree: \$400 per credit (no limit)

Senior citizen fee: \$65 per semester or session

All Non-Resident Students (These new rates are effective for the Fall 2015)

Full-time matriculated: \$560 per credit

Part-time matriculated: \$560 per credit

All Non-degree: \$840 per credit (no limit)

Complete up to date financial costs can be found at:

<http://www.citytech.cuny.edu/admissions/tuition-general.asp>

### III.1 ANNUAL STATISTICAL REPORTS<sup>22</sup>

*Not Applicable for APR-IC*

### III.2. INTERIM PROGRAM REPORTS

*Not Applicable for APR-IC*

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<sup>22</sup> Follow this link for data and statistics: [https://www.dropbox.com/sh/xa97r4fhwvtw068/AADboZzb7rNlyJtibpJKxsw\\_a?dl=0](https://www.dropbox.com/sh/xa97r4fhwvtw068/AADboZzb7rNlyJtibpJKxsw_a?dl=0)

## Section 4. Supplemental Information

Links are in alphabetical order:

### ADMINISTRATIVE STRUCTURE & GOVERNANCE

<https://www.dropbox.com/sh/2a830v6voj6w5x5/AAAKD7KQQRnBNtMkuHABNJzWa?dl=0>

### ACADEMIC INTEGRITY

City Tech's Policy on Academic Integrity is available in the College Catalog. See Section "Important Policies and Procedures/Student Disciplinary

<http://www.citytech.cuny.edu/catalog/docs/catalog.pdf>

See also: [http://www.citytech.cuny.edu/about-us/docs/CUNY\\_ACADEMIC\\_INTEGRITY\\_6-2011.pdf](http://www.citytech.cuny.edu/about-us/docs/CUNY_ACADEMIC_INTEGRITY_6-2011.pdf)

### ANNUAL STATISTICAL REPORTS

[https://www.dropbox.com/sh/xa97r4fhvwtw068/AADboZzb7rNlyJtibpJKxsw\\_a?dl=0](https://www.dropbox.com/sh/xa97r4fhvwtw068/AADboZzb7rNlyJtibpJKxsw_a?dl=0)

### NATIONAL CENTER FOR EDUCATION STATISTICS:

<https://nces.ed.gov/collegenavigator/?q=New+York+City+College+of+Technology&s=all&id=190655>

### B. ARCH. COURSE DESCRIPTIONS

[https://www.dropbox.com/sh/znyjip1zhbmd4e6/AABvODI3r-26u\\_8wkXNHnt59a?dl=0](https://www.dropbox.com/sh/znyjip1zhbmd4e6/AABvODI3r-26u_8wkXNHnt59a?dl=0)

### B. ARCH. CURRICULUM

<https://www.dropbox.com/s/x45d6y0tjae1tuf/B.Arch.20170903%20Program%20Chart.pdf?dl=0>

### CITY TECH HUMAN RESOURCE POLICIES ON FACULTY

[http://www.citytech.cuny.edu/ofsr/docs/instructional\\_staff\\_handbook.pdf](http://www.citytech.cuny.edu/ofsr/docs/instructional_staff_handbook.pdf)

## CITY TECH MIDDLE STATES ACCREDITATION

[https://www.msche.org/institutions\\_view.asp?idinstitution=67](https://www.msche.org/institutions_view.asp?idinstitution=67)

## CITY TECH OFFICE OF SCHOLARSHIPS & RESIDENCY SERVICES

<http://www.citytech.cuny.edu/scholarships/scholarships.aspx>

## CITY TECH POLICY INFORMATION ON EEO/NON-DISCRIMINATION

<http://www.citytech.cuny.edu/about-us/docs/non-discrim.pdf>

## CITY TECH POLICY ON AFFIRMATIVE ACTION

[http://www.citytech.cuny.edu/about-us/docs/pol\\_af\\_ada.pdf](http://www.citytech.cuny.edu/about-us/docs/pol_af_ada.pdf)

## CLASSROOMS AND LEARNING

[https://www.dropbox.com/s/3jp8ackma1xt6q0/20160819\\_1Reconsidering%20the%20Classroom%20at%20City%20Tech.pdf?dl=0](https://www.dropbox.com/s/3jp8ackma1xt6q0/20160819_1Reconsidering%20the%20Classroom%20at%20City%20Tech.pdf?dl=0)

## CUNY POLICY ON EEO/NON-DISCRIMINATION

<http://www2.cuny.edu/wp-content/uploads/sites/4/page-assets/about/administration/offices/hr/policies-and-procedures/CUNYPolicy-Equal-Opportunity-and-Non-Discrimination-010115-procedures.pdf>

## DEPARTMENT PHYSICAL RESOURCES

<https://www.dropbox.com/s/efrhphte9ygyok5/NYCCT-Voorhees%20Arch%20Floor%20Plans.pdf?dl=0>

## FACULTY MATRIX

<https://www.dropbox.com/sh/lwetgqf9jspvpsn/AABIRUQxJYFfcdxAb6zvTzXHa?dl=0>

## FACULTY VITAE

<https://www.dropbox.com/sh/5j4f9e4m5zy9eq5/AAC9F3n2iM6Lp1CJkMyHbP4ha?dl=0>

## GENERAL LINK TO CITY TECH POLICIES

<http://www.citytech.cuny.edu/about-us/policies.aspx>

## INFORMATION RESOURCES POLICIES

<https://library.citytech.cuny.edu/about/policies/collectionDev.php>

## STUDENT PERFORMANCE CRITERIA MATRIX

[https://www.dropbox.com/s/3fzijrbvvv1spo/B.Arch.20170903%20NAAB%20SPC%20Full%20Chart\\_SPC.pdf?dl=0](https://www.dropbox.com/s/3fzijrbvvv1spo/B.Arch.20170903%20NAAB%20SPC%20Full%20Chart_SPC.pdf?dl=0)

## SELF-ASSESSMENT POLICIES AND OBJECTIVES

College:

<http://air.citytech.cuny.edu/assessment/city-tech-assessment-plan/>

Department:

<https://www.dropbox.com/sh/oet9u6r87yrbyex/AACvP6SIrgXTNhtYwexYipt-a?dl=0>

## STUDIO CULTURE POLICY

<https://www.dropbox.com/sh/tjav62azbvcwmi0/AABDoJt-l32Mrf6lhVza16xUa?dl=0>

# APPENDIX:

Eligibility Memo

Plan for Achieving Initial Accreditation

Plan for Achieving Initial Accreditation Addendum

# APPENDIX Eligibility Memo



t. 202.783.2007  
f. 202.783.2822  
e. info@naab.org  
w. naab.org

National Architectural Accrediting Board

OFFICE OF THE PRESIDENT  
RECEIVED  
2017 MAR 20 A 10: 21

March 13, 2017

Russell K. Hotzler, Ph.D.  
President  
New York City College of Technology  
300 Jay Street, Namm-320  
Brooklyn, New York 11201

Dear President Hotzler,

At the February 2017 meeting of the National Architectural Accrediting Board (NAAB), the board reviewed the Application for Candidacy for the New York City College of Technology.

As a result, the proposed professional architecture degree program, the **Bachelor of Architecture**, has been accepted as eligible for candidacy. A visit for initial candidacy has been added to the Visit List for fall 2017. This visit will be conducted under the provisions of the NAAB 2014 Conditions for Accreditation and Section 4 of the *NAAB Procedures for Accreditation, 2015 Edition*.

The Architecture Program Report for Initial Candidacy (APR-IC) is due in the NAAB office 180 days before the date of the visit. The format and content of the APR-IC is described in detail in Sections 2 and 4 of the Procedures and in the Guidelines for Preparing an APR.

The board wishes to express its support for newly-developing programs by encouraging administrators and faculty to take advantage of the resources available within the community of program administrators, department chairs, and deans represented by the members of the Association of Collegiate Schools of Architecture (ACSA). The annual ACSA Administrators Conference and the ACSA Annual Meeting can be sources of rich discussion and advice for emerging programs. Further, the NAAB offers a full range of programs and workshops at both of these conferences that may be of value to the faculty and administrators at the New York City College of Technology.

A letter with the name of the proposed chair for the visit will be forthcoming in late summer. Once the New York City College of Technology approves the chair, you will be able to set the date for the visit.

If the program wishes to postpone the visit for initial candidacy to spring 2018, please submit a request at your earliest convenience.

Sincerely,

Judith Kinnard, FAIA  
President

cc: Sanjive Vaidya, Chair  
Kevin Horn, FAIA

Enc: Final Visiting Team Report



t. 202.783.2007

f. 202.783.2822

e. info@naab.org

w. naab.org

National Architectural Accrediting Board, Inc.

Date: December 19, 2016

MEMORANDUM FOR THE NATIONAL ARCHITECTURAL ACCREDITING BOARD

FROM: JORI ERDMAN, AIA, NOMA, LEED AP  
DIRECTOR

KEVIN FLYNN, FAIA, NCARB, IES  
DIRECTOR

ANDREA RUTLEDGE, CAE, Hon. AIA  
EXECUTIVE DIRECTOR

SUBJECT: Eligibility for Candidacy –New York City College of Technology  
(5 year B. Arch. 160 semester credit hours)

On October 12, 2016 New York City College of Technology filed an application for candidacy for an accredited Bachelor of Architecture. This application was filed under the terms of the 2015 NAAB Procedures for Accreditation, Section 4. Additional information was provided at the request of the NAAB on October 26.

The next step is to determine whether the proposed degree program is eligible for candidacy. The application was reviewed by a panel consisting of the executive director, Jori Erdman, AIA, NOMA, LEED AP, and Kevin Flynn, FAIA, NCARB, IES. Ms. Erdman and Ms. Rutledge conducted an eligibility visit on December 2.

The purposes of the eligibility visit are:

- To review the Conditions and Procedures with the proposed program's administrators, faculty, staff, and students.
- To confirm the institutional commitment to the implementation of the Plan for Achieving Initial Accreditation.
- To review the physical, financial, human, and information resources committed to the program.

Upon completing the visit, the panel is required to submit a memorandum to the NAAB Board of Directors addressing four areas:

1. A review of the resources committed to the program
2. Commitment of by the institution to implementation of the Plan for Achieving Initial Accreditation.
3. Assessment of the readiness of the program's readiness to complete a visit for initial candidacy.
4. Recommendation to the NAAB Board of Directors to accept or not accept the program as eligible for initial candidacy. The recommendation will also identify the length of time that should elapse before scheduling the initial candidacy visit.

**General Information:**

New York City College of Technology (NYCCT) 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 is considered a national model for technological education.

National Architectural Accrediting Board, Inc.

Since its founding in 1946 as the New York State Institute for Applied Arts and Sciences, NYCCT 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 support the post-war economy. 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 (CUNY) system.

Since its creation after World War II, the institution has maintained an explicit commitment to the social, economic, and political advancement of its students and graduates with a particular emphasis on first-generation college students and individuals from underrepresented groups.

The Department of Architectural Technology, originally part of the Voorhees Technical Institute, provided a two-year degree (AAS) in architectural drafting. At that time an associate's 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 (B. Tech.) was added in 2003. The two-year AAS program remained in place and was updated. The two degrees are the only programs of their kind in the CUNY system. The offering of the four-year degree proved popular and the student population expanded significantly. Currently enrollment ranges from 700 to 800 students total.

Between 2009 and 2013 the department conducted a comprehensive review of the curriculum of both degrees, redesigning them to balance the demands of the workforce, technological focus, and NAAB requirements for an accredited degree. The updated degrees integrate the college's general education focus, as well as placing a greater emphasis on an integrated design process that has 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 members, bringing the total to 20. The department has a part-time faculty cohort of 60.

The department has a robust learning culture that takes advantage of social spaces and ad hoc meet-ups as places for students to interact, coach and challenge each other, and engage. The students who met with the NAAB reviewers all commented on the strength of the support they give and receive from one another both in and out of the studio or classroom. Students also expressed significant pride in the program and the value of the opportunities available to them. All but one were planning to pursue advanced, NAAB-accredited degrees in order to become registered.

## 1. Review of Resources Committed to the Program

### Physical Resources

The Department of Architectural Technology is located on the eighth floor of Voorhees Hall on the NYCCT campus in Brooklyn, NY. 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 a drafting studio as well as some standard lecture classrooms on the third floor. The administration anticipates the

National Architectural Accrediting Board, Inc.

initial B. Arch. cohort will be in the range of 30-45 students. The current curriculum indicates that 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)

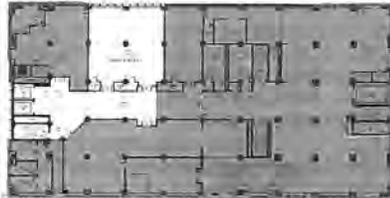


Architectural Technology  
V-305 Equipment and Furniture Layout New Proposal

Apr 5, 2012

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

National Architectural Accrediting Board, Inc.



Second Floor Voorhees Hall  
Department of Architectural Technology

#### Additional Faculty Offices (2nd Floor, Voorhees Hall)

From our meetings with faculty, the chair, and the dean, as well as touring and observing the physical resources, it is clear the department is making the best use of the space they have given their current teaching methodology and willingness to improvise. This includes assigning studio courses into computer labs that are not properly setup for the range of activities that are required in their current methodology (i.e., hand sketching and drawing, desk critiques, model making, large format drawing analysis and layout, group discussion, and pin-up presentations).

An analysis of the modified curriculum for the AAS program as well as the new B. Arch. program revealed to the department that they will need two new studio spaces by the fall of 2017 as well as one additional computer lab. Another two 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 the department. The dean and the chair expressed their intention to work with the administration to coordinate the program's specific program requirements for these spaces and confirm their availability by the required dates. At this point in time, the administration plans to think innovatively about how to accommodate and adapt both new and existing space to accommodate multi-modal teaching, including facilitating group discussion, teamwork, in-class research, and dynamic presentations, all with a view toward contemporary practice and worklife. All spaces will be expected to provide a base level of student access to networked digital technology in addition to the provisions at the instructor podium.

As a part of their internal self-study, the department identified the need for a formal arrangement for access to a wood shop as a complement to the fabrication lab. Currently the department is a guest in the shop of another department, which does not allow adequate class time and access outside of class times. The program leadership intends to continue working with the administration to address this need.

Faculty office space does not provide "space to support and encourage the full range of faculty roles and responsibilities, including preparation for teaching, research, mentoring, and student advising." With few exceptions, faculty are assigned to cubicles on the second floor while the administration is assigned a small set of offices on the 8th floor. This arrangement not only dissociates the faculty from the leadership, the administrative center, and the majority of teaching spaces, it currently does not provide any space where faculty can advise students

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in confidence. This is currently achieved in an ad hoc manner that future teams may see as a deficiency as the program progresses to initial accreditation.

The department does not require individual laptops for the students; although some students have made the investment. Access to computers for all students is provided in designated computer labs throughout Voorhees Hall. Faculty have arranged for software specific to architecture be installed on all machines and have also worked out web-based access for everyone on campus. The building is locked each night at 10:00 p.m., about which both students and faculty complained. In addition, there is no dedicated desk space for students where they can keep their belongings and projects; everything moves with them at all times.

Financial Resources

The program currently operates as a state and tuition-funded institution. All of the basic operational needs of the program are intended to be met with funds provided through these two sources.

During our visit, we were made aware of many enhancements that have been made by the department through one-time, funded grants and several major gifts. It is important for the long-term sustainability of an accredited program that such one-time gifts are enhancements to the core program, rather than funding the core activities. Administrators are advised to be clear about the distinction and to monitor activities so that there is not drift in one direction or the other.

Human Resources

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. All are registered architects: 19 are registered in the United States and one in Costa Rica. All have advanced degrees and three have PhDs. The part-time instructional staff of over 60 adjuncts hold 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.

There are many human resource related policies already in place by virtue of being part of the CUNY system. There is a clear administrative structure in place with appropriate oversight of the program.

Student advising is offered at the college level as well as professional advising by architecture faculty. The department has identified an Architect Licensing Advisor who has begun training in the program already.

The student cohort composition is highly diverse and gender balanced (see application p. 12). The faculty is less so and is more closely reflective of the national averages.

Information Resources

Because of the existing degree programs, the department has a strong connection to the library. In addition, by being part of the CUNY system, students and faculty have access to libraries all over the metropolitan area as well as through inter-library loan. In addition, 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.

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## 2. Commitment of the Institution to the Implementation of the Plan for Achieving Initial Accreditation

During our visit we met with the administrators of the Institution, including:

- Russell K. Hotzler, Ph.D., President
- Bonne August, Ph.D., Provost and VP for Academic Affairs
- Kevin Horn, Dean, School of Technology and Design
- Sanjive Vaidya, Chair, Department of Architectural Technology

They reiterated their commitment to achieving accreditation for a Bachelor of Architecture program within the School of Architecture. They see this as a part of their evolving institutional mission and have already sought and received ABET accreditation for their engineering programs. The president and provost see accreditation of the B. Arch. as the natural, next step for the department and in line with the institutional commitment to economic success for their graduates.

They did not make any specific commitment to improving or enlarging the space for the program but we concluded that the department has not yet made the case to the institution nor have they identified milestones or deadlines by which a proposal would be made. The dean indicated that further study would be done to evaluate the needs of the architectural programs as progress is made in developing the curriculum. The Dean of the School indicated that the commuter school aspect of the institution may allow innovative thinking about spatial use and programming.

They also were responsive to our counsel that space must be allocated to allow faculty to complete all of the duties of their positions, including advising, which needs private and confidential space.

While it is clear the dean, president, and department chair are giving a great deal of thought to innovative and creative ways to address the space needs of a program that will see more students remain enrolled for a longer period of time, the review panel made it equally clear that these plans must be documented with timelines and milestones so that subsequent visiting teams can observe progress toward realizing physical resources that will support student learning.

## 3. Readiness of the Program to Complete a Visit for Initial Candidacy

The panel's observations indicate that the program could be ready to complete a visit for initial candidacy by the fall of 2017.

The timeline for achieving initial accreditation is reasonable and includes the necessary institutional approvals for each stage of the corresponding curriculum reform.

The institution's president has a record of achieving state-level approvals for new and revised programs; his office will lead that effort. The program is, however, advised to include the dates and milestones for state approval in the next iteration of its timeline. These approvals must be in place by the time of initial accreditation.

The department intends to implement a revised curriculum beginning fall of 2017. Given that they are building the new program out of an existing, robust four-year program, there are already many elements in place necessary to initiate the curriculum and conduct an initial candidacy visit.

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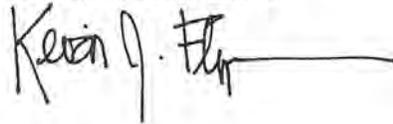
The B. Arch. curriculum is still being reviewed and evaluated – particularly the final three years. The SPC matrix submitted with the application has already been revised. Nevertheless, they have a solid outline for the first two years that is ready for implementation, pending approvals, with the fall 2017 entering class. The faculty continue to review the curriculum against the NAAB SPC and expect to make adjustments.

Finally, as stated earlier in this report, the program should be prepared to document planning and implementation goals for physical resources for subsequent teams.

Respectfully submitted,



Jori Erdman, AIA, NOMA, LEED AP



Kevin Flynn, FAIA, NCARB, IES



Andrea Rutledge, CAE, Hon. AIA

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# APPENDIX Plan for Achieving Initial Accreditation



## NEW YORK CITY COLLEGE OF TECHNOLOGY

The City University of New York  
300 Jay Street, Namm Hall 319  
Brooklyn, N.Y. 11201

### OFFICE OF THE PRESIDENT

Tel: 718 260 5400 Fax: 718 260 5406

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<sup>2</sup> grant-The City Tech I<sup>2</sup> Incubator: Interdisciplinary Partnerships for Laboratory Integration*. The *I<sup>2</sup> 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 Tomasetti, 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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 October 2016

<b>Program Administrator</b>	Sanjive Vaidya, Chair <i>Department of Architectural Technology</i> 186 Jay Street Voorhees-818 Brooklyn, New York 11201 <a href="mailto:SVaidya@citytech.cuny.edu">SVaidya@citytech.cuny.edu</a> 718-260-5262
<b>Chief administrator for the academic unit in which the program is located</b>	Kevin Horn, Dean <i>School of Technology and Design</i> 186 Jay Street Voorhees-806 Brooklyn, New York 11201 <a href="mailto:KHorn@citytech.cuny.edu">KHorn@citytech.cuny.edu</a> 718-260-5525
<b>Chief Academic Officer of the Institution</b>	Bonne August, Ph.D. <i>Provost and VP for Academic Affairs</i> 300 Jay Street Namm-320 Brooklyn, New York 11201 <a href="mailto:BAugust@citytech.cuny.edu">BAugust@citytech.cuny.edu</a> 718-260-5560
<b>President of the Institution</b>	Russell K. Hotzler, Ph.D. <i>President</i> 300 Jay Street Namm-320 Brooklyn, New York 11201 <a href="mailto:RHotzler@citytech.cuny.edu">RHotzler@citytech.cuny.edu</a> 718-260-5400
<b>Individual submitting the Architecture Program Report and individual to whom questions should be directed</b>	Sanjive Vaidya, Chair <i>Department of Architectural Technology</i> 186 Jay Street Voorhees-818 Brooklyn, New York 11201 <a href="mailto:SVaidya@citytech.cuny.edu">SVaidya@citytech.cuny.edu</a> 718-260-5262
<b>Accreditation Committee Members</b>	Jason Montgomery, <i>Assist. Professor</i> Barbara Mishara, <i>Assist. Professor</i> Ting Chin, <i>Assist. Professor</i> Phillip Anzalone, <i>Assist. Professor</i> Michael Duddy, <i>Assist. Professor</i>

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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.

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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.

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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.

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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 underserved 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

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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

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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.

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#### Enrollment by Ethnicity as of Fall 2015

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

Source: AIM Data Overview at [http://air.citytech.cuny.edu/air/Data\\_Overview.aspx](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.

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- 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	%	
<b>Female</b>	7,640	43.8%	233	33.6%	7	35%	45%
<b>Male</b>	9,784	56.2%	460	66.4%	13	65%	55%
<b>Grand total</b>	<b>17,424</b>		<b>693</b>		<b>20</b>		

\*[http://www.naab.org/accreditation/statistics/NAAB\\_2015AnnualReport\\_Part1\\_Final-4.pdf](http://www.naab.org/accreditation/statistics/NAAB_2015AnnualReport_Part1_Final-4.pdf)

#### 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.

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- 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.

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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.

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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 is 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**

### **1.2.1 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.





### ANALYSIS OF DEPARTMENT SPACE RESOURCE NEEDS

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

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,

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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, ebrary, 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.

### **1.2.5 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,

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Environmental Control Technology and Mechanical Engineering Technology. The dean of the School of Technology and Design is Kevin Horn, 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	U	U	U	U	A	A	U	U	U	U				
		Prof Comm Skills	Design Thinking Skills	Investigative Skills	Non-Design Skills	Decision Systems	Use of Professionals	History and Culture	Cultural Diversity	Pre-Design	Site Design	Codes and Regulations	Technical Communication	Structural Systems	Environmental Systems	Blog Env Sys + Examples	Blog Mktg + Examples	Blog Service Systems	Financial Considerations	Research	Risk Eval - Decision Making	Integrative Design	Stakeholder Roles in Work	Project Management	Business Practices	Legal Responsibilities	Professional Conduct	
		REALM A						REALM B						REALM C						REALM D								
		A1	A2	A3	A4	A5	A6	A7	A8	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	C1	C2	C3	D1	D2	D3	D4	D5	
YEAR 1	ARCH 1110- FOUNDATIONS I																											
	ARCH 1190- VISUAL STUDIES I																											
	ARCH 1130- BTECH I																											
	ARCH 1200- FOUNDATIONS II																											
	ARCH 1261- VISUAL STUDIES II																											
YEAR 2	ARCH 121- INT ARCH TECH																											
	ARCH 1230- BTECH II																											
	ARCH 1250- SITE PLANNING																											
	ARCH 2310- STUDIO III																											
	ARCH 2321- HIS ARCH 1900A PRES.																											
YEAR 3	ARCH 2330- BUILDING TECH III																											
	ARCH 2370- BLDG SYS																											
	ARCH 2410- STUDIO IV																											
	ARCH 2430- BUILDING TECH IV																											
	ARCH 2490- STRUCTURES I																											
YEAR 4	ARCH 3510- STUDIO V																											
	ARCH 3580- STRUCTURES II																											
	ARCH 3610- STUDIO VI																											
	ARCH 4710- STUDIO VII																											
YEAR 8	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		
		Prof. Comm. Skills	Design Thinking Skills	Investigative Skills	Arch. Design Skills	Design Systems	Use of Processes	History and Culture	Cultural Diversity	Prac. Design	Code Design	Codes and Regulations	Technical Documentation	Structural Systems	Environmental Systems	Bldg En. Sys. + Materials	Bldg. Mech. + Acoustics	Bldg. Services Systems	Formal Coordination	Research	Int. Eval. + Decision Making	Integrative Design	Stakeholder Roles in Arch	Project Management	Business Practices	Legal Responsibilities	Professional Conduct	
		REALMA										REALMB						REALMC				REALMD						
		A1	A2	A3	A4	A5	A6	A7	A8	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	C1	C2	C3	D1	D2	D3	D4	D5	
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 2330- SITE PLAN + SUSTAIN																											
	ARCH 2321- ARCH HISTORY II																											
	ARCH 2410- STUDIO IV																											
YEAR 3	ARCH 2330- BUILDING TECH III																											
	ARCH 3510- STUDIO V																											
	ARCH 3505- BUILDING TECH IV																											
	ARCH 3580- STRUCTURES I																											
	ARCH 3510- STUDIO VI																											
YEAR 4	ARCH 3505- BLDG SYSTEMS																											
	ARCH 3580- STRUCTURES II																											
	ARCH 3621- THEORY I																											
	ARCH 4710- STUDIO VII																											
	ARCH 4780- STRUCTURES III																											
YEAR 5	ARCH 4810- STUDIO VIII																											
	ARCH 5510- STUDIO IX																											
	ARCH 5521- THEORY II																											
	ARCH 5501- 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.

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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.



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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](http://www.aia.org), [www.aiaa.org](http://www.aiaa.org), [www.acsa--arch.org](http://www.acsa--arch.org), [www.NCARB.org](http://www.NCARB.org), [www.ARCHCareers.org](http://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

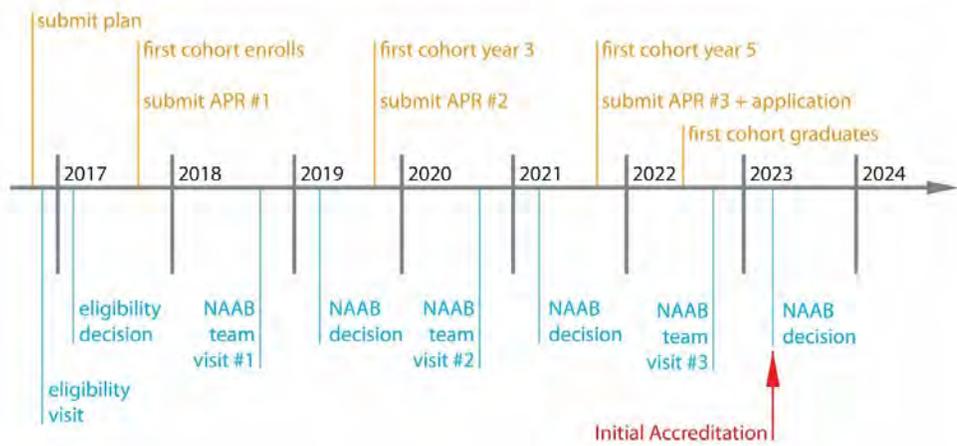
These documents will be housed in the School of Technology and Design office and accessible to all. PDF versions will be available for download from the program's website.

**PART TWO**

**Timeline for Achieving Initial Accreditation**

NAAB Process:

CITY TECH Bachelor of Architecture Accreditation Timeline



College Approval Process:

CITY TECH Bachelor of Architecture Curriculum Timeline



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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 <i>The Plan for Achieving Initial Accreditation</i> to NAAB	
		Submit: <i>Years 1 and 2 Curriculum Modifications</i> to College Council	
	Nov		Eligibility Visit
	Dec	College Council Approval of <i>Years 1 and 2 Curriculum Modifications</i>	

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2017	Feb-Mar		NAAB Decision regarding Eligibility Status
	Aug	1st B. Arch. Eligible Cohort Enrolls	
	Sept.	Submit: <i>Architectural Program Report</i> to NAAB	
		Submit: <i>New Academic Program Proposal</i> to College Council <i>And Years 3, 4, and 5 Curriculum Modifications</i> to College Council	
Dec.	College Council Approval of <i>Years 3, 4, and 5 Curriculum Modifications and New Academic Program</i>		
2018	Fall		<b>NAAB Team Visit #1:</b> 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: <i>Architectural Program Report</i> to NAAB	
2020	Fall	1st B. Arch. Cohort Starts 4th Year	<b>NAAB Team Visit #2:</b> Candidacy for Initial Accreditation

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2021	Spring		NAAB Decision regarding Continued Candidacy for Initial Accreditation
	Fall	1st B. Arch. Cohort Starts 5th Year	
		Submit: <i>Application for Initial Accreditation</i>	
2022	Spring	1st B. Arch. Cohort Graduates	
	Fall		<b>NAAB Team Visit #3:</b> Candidacy for Initial Accreditation
2023	Jan-Feb		NAAB Decision on Initial Accreditation

# APPENDIX Plan for Achieving Initial Accreditation

## Addendum

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### **ADDENDUM: PART ONE**

November 14, 2016

#### **PART II EDUCATIONAL OUTCOMES AND CURRICULUM**

##### **II.4.6 ADMISSION AND ADVISING**

Admission requirements to the program at CITY TECH are as follows:

Associate Degree Programs:

High school diploma with minimum of a 70 average or a minimum score of 2700 on the GED/HSE exam.

Bachelor's Degree Programs:

High school diploma with a 75 or higher average or a minimum score of 2750 on the GED/HSE exam.

Incoming students are required to take the CUNY proficiency exam in English and Math.

Students are exempt from this test if they have minimum scores of 480 (Verbal) / 500 (Math) in SAT; or 20 (English) / 21 (Math) in ACT; or 75 (English) / 80 (Math) in New York State Regents examinations.

Transfer Students Requirements:

Minimum GPA of 2.0; Prove college level competency in English and Mathematics;

A grade of a C or better in non-remedial courses from an accredited college or university or from appropriate test scores from the SAT, ACT, NYS Regents, or CUNY Proficiency Examinations; Transcripts from all post-secondary institutions attended; Proof of High School Graduation, or HSE0; If applicable, proof of any name change; Proof of immunization.

Complete admission requirements can be found online at:

<http://www.citytech.cuny.edu/admissions/requirement.aspx>

##### **II.4.6 STUDENT FINANCIAL INFORMATION:**

Each college of The City University of New York is required to receive from each admitted student a non-refundable tuition deposit of \$100 before the student will be permitted to register. Veterans, Special Programs students (including SEEK) and students whose Free Application for Federal Student Aid (FAFSA) shows an effective family contribution (EFC) of \$3,000 or less will be exempt from the deposit requirement.

Resident Students (These new rates are effective for the Fall 2015)

Full-time matriculated: \$3,165 per semester

Part-time matriculated: \$275 per credit

All Non-degree: \$400 per credit (no limit)

Senior citizen fee: \$65 per semester or session

All Non-Resident Students (These new rates are effective for the Fall 2015)

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Full-time matriculated: \$560 per credit  
Part-time matriculated: \$560 per credit  
All Non-degree: \$840 per credit (no limit)

Complete up to date financial costs can be found at:  
<http://www.citytech.cuny.edu/admissions/tuition-general.aspx>