

OPTIONAL RESPONSE

2022 Visiting Team Report
Initial Accreditation Visit November 16-18, 2022.

01 February 2023

The faculty, students, and staff at the New York City College of Technology and Department of Architectural Technology would like to express our gratitude to the Visiting Team for their thoughtful and thorough review, and insightful observations and constructive feedback of the program.

After careful reflection of the team comments, we would like to take this opportunity to share additional information and supporting evidence addressing the Conditions Not Met:

- 3.2. SC.5.Design Synthesis
- 3.2. SC.6. Building Integration
- 5.6. Physical Resources

We would like to provide additional evidence to demonstrate where we think we are meeting conditions that have been indicated as “Not Met.” For the Student Criteria indicated as “Not Met” we believe that we are meeting the criteria in our curriculum, but the work that was shown to the Visiting Team was insufficient. The enclosed material will provide a more robust selection of student course work that may successfully fulfill the criteria. For consistency, we are only presenting additional supporting material produced by the students selected by the Visiting Team and students we had originally selected as “Additional Examples.” We have commented in the .pdfs of the student work where and how we feel we are meeting the criteria for SC.5 and SC.6.

For the Curricular Framework that has been indicated as “Not Met” we have provided a narrative response to address the Visiting Team’s concerns.

3.2. SC.5.Design Synthesis

Visiting Team Comments:

SC.5 Design Synthesis—How the program ensures that students develop the ability to make design decisions within architectural projects while demonstrating synthesis of user requirements, regulatory requirements, site conditions, and accessible design, and consideration of the measurable environmental impacts of their design decisions. ([p. 12](#))

☒ **Not Met**

2022 Team Analysis:

The team found a significant inconsistency in student work in terms of meeting this SC at the ability level, in both ARCH 3512 Architectural Design V and 3612 Architectural Design VI. The student work did not demonstrate the ability to synthesize all the aspects of design integration included in the SC description. In particular, accessible design (beyond ADA requirements for bathrooms) and the measurable environmental impacts of design decisions were not found in the vast majority of student projects

NYCCT Response:

At the time of the visit the student work shared with the Visiting Team for ARCH 3512 Architectural Design V and ARCH 3612 Architectural Design VI only included students' final presentation submissions. These presentations were edited for brevity during the final reviews and lacked supporting work produced during the semester. Over the 2021-22 academic year the ARCH 3512 and ARCH 3612 course coordinators had developed and deployed a series of modules with dedicated assignments to address many of the sub-criteria included in SC.5. Some of these supporting assignments were edited from the final presentations shared with the Visiting Team. We would like to take this opportunity to share the student work produced in direct response to the assignments as additional supporting information. We believe these assignments will better represent the level of analysis and synthesis the students achieved.

Additionally, we would like to submit work from ARCH 4712 Architectural Design VII and ARCH 3531 Building Technology IV from the same group of ARCH 3512 Architectural Design V and ARCH 3612 Architectural Design VI students selected by the Visiting Team and by the department as *Additional Examples*. ARCH 4712 Architectural Design VII and ARCH 3531 Building Technology IV also address some of the sub-criteria of SC.5. Below is a list of SC.5 sub-criteria and links to the student work where we feel this criterion can be demonstrated.

To demonstrate synthesis of:

User requirements

[ARCH 3512- Architectural Design V](#)

Regulatory Requirements

[ARCH 3612- Architectural Design VI](#)
[ARCH 3531- Building Technology IV](#)

Site Conditions

[ARCH 3612- Architectural Design VI](#)
[ARCH 3712- Architectural Design VII](#)

Accessible Design

[ARCH 3512- Architectural Design V](#)
[ARCH 3612- Architectural Design VI](#)
[ARCH 3712- Architectural Design VII](#)
[ARCH 3531- Building Technology IV](#)

Measurable Environmental Impacts

[ARCH 3612- Architectural Design VI](#)
[ARCH 3531- Building Technology IV](#)

3.2. SC.6. Building Integration

Visiting Team Comments:

SC.6 Building Integration—How the program ensures that students develop the ability to make design decisions within architectural projects while demonstrating integration of building envelope systems and assemblies, structural systems, environmental control systems, life safety systems, and the measurable outcomes of building performance. ([p. 12](#))

☒ **Not Met**

2022 Team Analysis:

Also for this SC, the team found a significant inconsistency in student work in terms of meeting the criterion at the ability level in ARCH 4812 Architectural Design VIII. The building envelope systems and assemblies were found well developed across the examples, and the measurable outcomes of building performance were found in most projects. However, structural systems and life safety systems were superficially, and thus not sufficiently, addressed. In particular, most projects did not show a developed, analyzed, and integrated structural system. Furthermore, environmental control systems (beyond solar radiation and natural lighting control systems) were not considered as part of building design integration.

NYCCT Response:

The student work presented at the time of the visit for this criterion only included evidence from ARCH 4812 Architectural Design VIII. We would like to take this opportunity to also include student work from ARCH 3531 Building Technology IV as evidence in support of this criterion. In this course students work in teams to design a mid-rise building and individually develop a set design development level of construction drawings. The course is the culmination of the Building Technology Studio sequence that is required as part of the curriculum at the college. As noted by the Visiting Team in Appendix 1, the department excels in teaching the application of technical knowledge through the building technology sequence. We feel that the criteria for SC.6 is more comprehensively met between these two courses rather than solely in ARCH 4812 Architectural Design VIII.

The B. Arch curriculum at City Tech centers around exposing students to both the design and technical aspects of architecture. The building technology studios are at the core of our curriculum. Students are required to take four sequential building technology studios that each focus on a different building material and its associated systems, technologies, and assemblies. Each course reviews established systems and exposes students to emerging systems currently being researched or deployed in the profession. In each studio students are asked to study the characteristics of different building materials and assemblies, such as performance, economics, and aesthetics, and how these aspects affect decision-making in the design process. Students are then asked to apply their knowledge about the materials and assemblies being studied through the design and development of technical documents for buildings at various scales.

Below is a list of SC.6 sub-criteria and links to the student work where we feel this criterion can be demonstrated. We are submitting work from ARCH 3531 Building Technology IV from the same group of ARCH 4812 Architectural Design VIII students selected by the Visiting Team and by the department as *Additional Examples*.

To demonstrate the integration of:

Building Envelope Systems and Assemblies

[ARCH 4812- Architectural Design VIII](#)

[ARCH 3531- Building Technology IV](#)

Structural Systems

[ARCH 4812- Architectural Design VIII](#)

[ARCH 3531- Building Technology IV](#)

Environmental Control Systems

[ARCH 4812- Architectural Design VIII](#)

[ARCH 3531- Building Technology IV](#)

Life Safety Systems

[ARCH 3531- Building Technology IV](#)

Measurable Impacts of Building Performance

[ARCH 4812- Architectural Design VIII](#)

[ARCH 3531- Building Technology IV](#)

5.6. Physical Resources

Visiting Team Comments:

5.6 Physical Resources ([Guidelines, p. 21](#))

The program must describe its physical resources and demonstrate how they safely and equitably support the program's pedagogical approach and student and faculty achievement. Physical resources include but are not limited to the following:

- 5.6.1 Space to support and encourage studio-based learning.
- 5.6.2 Space to support and encourage didactic and interactive learning, including lecture halls, seminar spaces, small group study rooms, labs, shops, and equipment.
- 5.6.3 Space to support and encourage the full range of faculty roles and responsibilities, including preparation for teaching, research, mentoring, and student advising.
- 5.6.4 Resources to support all learning formats and pedagogies in use by the program.

If the program's pedagogy does not require some or all of the above physical resources, the program must describe the effect (if any) that online, off-site, or hybrid formats have on digital and physical resources.



☒ Not Demonstrated

2022 Team Analysis:

While the department discussed progress in the APR, and the team observed that progress had been made since the previous visit, the team noted several areas of concern:

- **Hours of Operation:** students noted that the Voorhees Building closes at 10pm, which restricts access to both physical and computer modeling technology that is heavily relied upon for many student assignments. Students also noted that, technologically, a workaround for the computer labs was coming together thanks to virtual desktop, but added that virtual desktop was somewhat constrained by the processing power of their home computers or laptops, leaving many with little choice but to use computer labs. Cutters, 3D printers, and CNCs are all inaccessible after 10pm.
- **Equipment Maintenance Issues:** students also noted that, when they did have access to physical model shops, a number of tools, particularly laser cutters and 3D printers, were frequently offline. Students also noted that printers were frequently out of service, and there was regular difficulty printing even 11x17 format materials. Department staff noted that while the department does have dedicated IT support, it is difficult in the NYC tech market to find staffing to support IT given the market competition.
- **Lack of Studio Space:** The team noted that there was a lack of dedicated studio space for B.Arch. students, with the exception of fifth year thesis students who did have dedicated space. Given the college's identity as a commuter school, it was noted that there was very little dedicated space for architecture students to claim as their own for quiet study or storage of models and personal equipment.
- **Lack of Space to Accommodate Program Growth:** Over the course of the visit, the team heard commentary discussing the potential for increased enrollment once B.Tech. students saw the B.Arch. program receive accreditation, as well as the possibility for increased enrollment throughout the city as NYCCT's program offers a more cost competitive degree. The team was concerned with the size of NYCCT's space during the visit, and observed that there was little room for growth within the current space holdings of the department for future growth.
- **Accessibility:** While the team was not on hand to physically see the space due to the ongoing COVID-19 pandemic, the team did note several ADA concerns on the virtual space tour, including non-compliant door hardware, inadequate door swing clearances, and a lack of accessible toilet facilities on floors utilized by the department.

NYCCT Response:

We acknowledge the team's observations, but would like to note that during the pandemic most of the financial and human resources intended to be used for physical resources, maintenance and improvement, were redirected to support the unprecedented transition to remote learning. We are currently transitioning back to in-person learning and use this opportunity to share additional information that may not have been evident during the Visiting Team's Virtual Tour. We have provided additional information about initiatives that some of the students interviewed may not have been familiar with since many of them have never been on campus or are just coming back after two years of remote learning.

Hours of Operation:

Although we understand the student's desire to have access to campus later than 10PM, we are encouraging students to engage in a healthier lifestyle and develop better time management skills. Additionally, as a commuter school, we must keep in mind student safety, as many students use public transportation to travel long distances to and from school. The faculty are aware that students have limited hours for access to physical resources and organize their classroom time accordingly.

As an option to physical access to campus resources the college is expanding the Virtual Desktop System (Apporto). There is a budget recommendation to increase the number of licenses from 45 to 90 and as well as an increase in graphic processing power. Furthermore, the department has transitioned Adobe and Rhino licenses to the cloud so that the students may have access outside of school. To address student device needs when off campus, and to provide adequate processing/rendering capability, the department has launched an automated laptop loan kiosk. Currently, there are only five devices available as part of the pilot program and more available by manual checkout with a staff member, but the proposed budget will expand this to approximately 20 automated laptop kiosks. Furthermore, to support students with financial hardships the Department has launched its own laptop grant program. Three grants were awarded in the 2021-2022 academic year, with the expectation of expanding this to approximately 6 - 10 grants over the next two academic years.

Equipment Maintenance Issues:

The department has created an academic position to address the need for an Computation and Digital Fabrication Instructor who may also serve as a Fabrication Lab Manager. This will improve access and maintenance of the equipment by assigning responsibility to an expert in this field who is also executing curriculum. Immediately after the NAAB visit a new large format plotter, HP PageWide Series, was delivered to the department. This equipment will service student and faculty needs for both design and tech studios. Local printing is being addressed via the formal tech-fee funding process and is expected to be resolved over the next academic year. The Dean of the School of Tech and Design is currently reviewing the plotting and printing needs of all the departments she manages to identify a cost effective and centralized solution for all of the students and faculty.

Lack of Space to Accommodate Program Growth:

To accommodate increased enrollment as the program grows and achieves recognition, an assessment was conducted by the department's master course scheduler, Prof. Jill Bouratoglou, of adjacent and nearby classrooms to conduct tech studios courses. Prof. Bouratoglou determined that V-713 A & B in the Electrical and Telecommunication Engineering Technology (ETET) Department were underutilized. Working in cooperation with that department, additional sections of studio courses were opened and housed in these spaces for the Spring 2023 semester. Additionally, the Department is testing a partnership with Beyer Blinder Belle, a nationally recognized architectural firm to host studios courses off-campus, at the firm's office, once a week. This would enable additional un-programmed classroom spaces to allow students time to work in unoccupied classroom spaces, using computers, drafting boards or modeling equipment. The college is currently executing multiple classroom renovation projects throughout the campus which will begin freeing classroom spaces in the Voorhees building which are shared by departments outside of the School of Technology and Design. This is a component of a strategy to bring students and classrooms closer to each department's main office.

Lack of Studio Space:

To address the lack of dedicated studio space, the department will continue to program course sections in adjacent departments, thus relieving over programmed studio space in V813 which also doubles as digital fabrication lab space. This will allow the department to program open hours for students to access equipment and studio space. To address storage of models and personal equipment, lockers and storage cubbies are being test-fitted for V813. This remains in the planning

stages and is anticipated to be executed over the next academic year. Quiet study spaces do exist in the second floor of the Voorhees Building. The "iTec" computer lab in V-217 is a centrally managed quiet work/study space and computing resource center for students in the School of Tech and Design. The Voorhees and Namm cafeteria lounges, also on the second floor, are also used as study spaces for individual and small working groups. By reducing the classroom programming loads as noted above, spaces on the eighth floor can be maintained for student access as quiet workspaces to draw, model or use software. This includes classrooms V-812, 813 and 814.

Accessibility:

The Voorhees building is undergoing a total bathroom reconstruction project with anticipated completion in June 2023. All bathrooms are being brought into compliance with the ADA guidelines. As the college recovers fiscally from pandemic era spending, continued improvements are being made to facilitate student comfort in the classroom, to access labs and equipment. Over the past years, faculty in the department have worked with students with severe physical disabilities to ensure they receive access and accommodation as needed to successfully complete their academic course load. [The Center for Student Accessibility](#) provides guidance and support, to students *and* faculty, to navigate physical and mental health obstacles.