University at Buffalo
Department of Architecture
School of Architecture and Planning

Optional Response to the VTR: PC.6

Background

This document is a response to the final Visiting Team Report (VTR) received 02 May 2024, following corrections of errors of fact and the site visit, which occurred 03-06 March 2024. This response is specific to the lone criterion that the visiting team identified as not met:

> *PC. 6. Leadership and Collaboration—How the program ensures that students understand approaches to leadership in multidisciplinary teams, diverse stakeholder constituents, and dynamic physical and social contexts, and learn how to apply effective collaboration skills to solve complex problems.*

In the VTR, the team identified that learning and assessment of collaboration was met, but they "did not find evidence of student understanding and assessment of leadership." **As such, this document focuses only on the *leadership* facet of PC.6.** A primary response (focused on ARC 582: Professional Practice) and supplemental materials (focused on ARC 605/606/607/608 Graduate Research Studios) are included below. An update to the program's assessment plan is also included (Appendix 1).

Primary Response: ARC 582: Professional Practice

The program made a clerical error in the information delivered to the visiting team. Mistakenly, ARC 582: Professional Practice was not listed under PC.6 in the matrices, nor were the assessments provided. This course, nevertheless, clearly addresses PC.6. First, the course is required of all students in all program tracks. Second, the course is near the end of the curriculum, is a primary facet in facilitating students' transition to the profession, and covers a constellation of issues in architectural practice. Third, the course includes learning objectives and assessments to ensure "that students understand approaches to leadership in multidisciplinary teams, diverse stakeholder constituents, and dynamic physical and social contexts."

Consistent with the documents that the visiting team received for other PCs and SCs, the outline below summarizes the pertinent learning objectives, methods of learning and assessment, benchmark (goal), and assessment results for this course.

Assessment Criterion 1: Leadership in Multidisciplinary Teams
Students develop an understanding of the approaches to leadership in multidisciplinary teams through a detailed reading of the major construction contracts, peer-reviewed articles, the AIA-2018 Code of Ethics and Professional Conduct, and the NCARB AXP Architectural Experience Guidelines. Lectures augment the learning. Understanding is assessed through weekly quizzes.

Benchmark: 93% of students demonstrate understanding.
Result: 98% of students passed the relevant quiz questions.

Assessment Criterion 2: Leadership with Diverse Stakeholders/Constituents
Students develop an understanding of the approaches to leadership when working with diverse stakeholder constituents through a detailed reading of the major construction contracts, peer-reviewed articles, the AIA-2018 Code of Ethics and Professional Conduct, and the NCARB AXP Architectural Experience Guidelines. Lectures augment the learning. Understanding is assessed through weekly quizzes.

Benchmark: 93% of students demonstrate understanding.
Result: 98% of students passed the relevant quiz questions.

Assessment Criterion 3: Leadership in Dynamic Physical and Social Contexts
Students develop an understanding of the approaches to leadership when working in dynamic contexts through a detailed reading of the major construction contracts, peer-reviewed articles, the AIA-2018 Code of Ethics and Professional Conduct, and the NCARB AXP Architectural Experience Guidelines. Lectures augment the learning. Understanding is assessed through weekly quizzes.

Benchmark: 93% of students demonstrate understanding.
Result: 98% of students passed the relevant quiz questions.

Supplemental Materials: ARC 605/6/7/8: Graduate Research Studios

Beyond the ARC 582 Professional Practice course, the ARC 605/6/7/8 Graduate Research Studios address PC.6. All three tracks of the M.Arch program culminate in these studios within our "Graduate Research Group" system. Per the APR:

> *Like others in the US, UB's architecture tracks include a series of core architecture design studios, architectural history and theory courses, structural and environmental systems courses, and general education and elective courses. Uniquely, however, much of the curricula in our master's tracks are delivered through the Graduate Research Groups (GRGs), engaging both enduring and timely themes. The five GRGs…align with the school's and Buffalo's history of experimentation, technological innovation, and social activism; dovetail with faculty members' scholarly and professional work; and meet the employment needs and creative ambitions of both regional, specialized architecture firms and large, multi-national firms.*
>
> *…*
>
> *The GRGs [have] enabled faculty [and students]…to engage important, challenging, and risky topics; pursue meaningful local, national, and international projects; and collaborate with students, faculty, and partners across a vast array of disciplines on issues like environmental justice, affordable housing, refugee health, disaster resilience, and curricular decolonization, among others…addressing imperatives of the 21st century.*
>
> *…*
>
> *The GRG [studios] provide a unique finish in the M.Arch program, as they take advantage of and advance the faculty research above and capitalize on the faculty's expert networks. Each group ties architectural design to timely research agendas, and students have the opportunity to study in one or more areas:*
> - *inclusive design: addressing issues related to disability, age, gender, race, etc.*
> - *ecological practices: engaging topics on energy, biodiversity, and sustainability*
> - *material culture: exploring traditional and new forms of fabrication and construction*
> - *situated technologies: investigating the roles of digital technologies in design, construction, and monitoring at multiple scales*
> - *urban design: examining the social, economic, political, and other factors affecting the design of cities and neighborhoods*
>
> *These groups engage an array of other disciplines, including public health, anthropology, sociology, gender studies, geography, geology, landscape architecture, urban planning, material science, computer science, robotics, media study, visual arts, and engineering.*

GRG studios encourage experimental and research-based design as activities steeped in the challenges and opportunities that come from innovations [and leadership] in materials and fabrication techniques, emerging digital technologies, and questions of environmental and social justice.

Each of the GRG studios taught in calendar year 2023 (the two semesters leading up to accreditation) are outlined below. *Leadership* learning objectives have been reassessed; collaboration objectives have been removed for expediency (as the visiting team deemed collaboration to have been met).

Each studio had leadership learning objectives specific to the course. Per the literature on leadership education, instructors were asked meet at least three of four types of leadership learning outcomes:

1. *Personal Competencies*, such as self-awareness, values, ethics, professional behavior, flexibility, and resiliency (in architecture).
2. *Interpersonal Competencies*, such as communication, empathy, and conflict management (in architecture).
3. *Social Competencies*, such as identity, cultural contexts, and privilege (in architecture).
4. *Structural/Systems Competencies*, such as power structures, governance structures, disciplinary structures, organizational change, and process innovation (in architecture).

Ecological Practices: Spring 2023

- Personal Competency: Students understand how building science principles (e.g., Passive House) can be used to repair vacant homes and bring quality housing to neighborhoods impacted by decades of redlining and disinvestment.
  Benchmark: 100% of students demonstrate understanding.
  Result: 100% of students met the goal.

- Interpersonal Competency: Students utilize digital strategies and tools to manage data sharing among teams.
  Benchmark: 100% of students demonstrate understanding.
  Result: 100% of students met the goal.

- Social Competency: Students participated in a lecture from PUSH Buffalo to understand how extreme racial segregation, decades of disinvestment, and environmental stressors continue to be the norm in housing on the West Side of Buffalo.
  Benchmark: 100% of students demonstrate understanding.
  Result: 100% of students met the goal.

- Structural/Systems Competency: As part of the Certified Passive House Consultant (CPHC) curriculum, students define the roles of engineers, architects, contractors, and assessors in designing, building, and evaluating Passive Houses and understand the role of CPHCs in leading these interdisciplinary teams.
  Benchmark: 100% of students demonstrate understanding.
  Result: 100% of students met the goal (including a 100% CPHC exam pass rate).

Ecological Practices: Fall 2023

- Personal Competency: As individuals, students identified a need within or in complement to an existing masterplan developed by Buffalo Architect Carmina Wood Design. These needs were expressed to the Western Niagara Scout Council (client) through a detailed programming proposal focused on how individual projects benefit the existing operation, and client's vision for the future of the camp. These were presented to the client and approved or modified before further study.
  Benchmark: 100% of students demonstrate understanding.

Result: At phase 1, 75% of student projects received an initial positive response; after responding to client comments, 100% of student projects met the goal.

- Interpersonal Competency: N/A for this course.
  Benchmark: N/A
  Result: N/A

- Social Competency: Students participated in three overnight camping trips at Scouthaven. Each was organized to function as closely as possible to a scout camping trip to give students a deeper understanding of their design audience. After each, students reflected on scouting and the physical context of Southaven. These reflections were shared and discussed with the group and used to build empathy.
  Benchmark: 100% of students demonstrate understanding.
  Result: 100% of students met the goal.

- Structural/Systems Competency: Students worked to understand the client organization, Scouts BSA, and their complex history as the Boy Scouts of America. In teams, students developed 100-year graphic timelines studying the history of the site, global scouting organizations, national scouting organizations and local scouting. These timelines discuss the client's complex and changing understanding of equity, gender and sexuality and a recent trajectory towards inclusion and youth protection. The studio discussed how to confront the positive and negative sides of history, and how to present these findings respectfully back to the client.
  Benchmark: 100% of students demonstrate understanding.
  Result: 100% of students met the goal.

Inclusive Design: Spring 2023 and Fall 2023

- Personal Competency: Each student learned to utilize multiple advanced functions in Microsoft Teams for project management.
  Benchmark: 100% of students demonstrate understanding.
  Result: 100% of students met the goal each semester.

- Interpersonal Competency: Students worked in teams to develop workplans, assign roles, and to resolve interpersonal communication challenges, with weekly facilitation and coaching by the instructor.
  Benchmark: 100% of students demonstrate understanding.
  Result: 100% of students met the goal in the spring semester; 92% of students met the goal in the fall semester.

- Social Competency: Each student completed research to collect and communicate the diversity of restroom experiences. Each then developed personas based on that research that were shared with the class through storytelling to guide their design projects.
  Benchmark: 100% of students demonstrate understanding.
  Result: 100% of students met the goal each semester.

- Structural/Systems Competency: Each student contributed two exhibits to the development of a major exhibition on inclusive restrooms in the Hayes Hall Atrium, which had to address both the social issues uncovered in the studio and the code constraints of the exhibition space.
  Benchmark: 100% of students demonstrate understanding.
  Result: 100% of students met the goal each semester.

Material Culture: Spring 2023 and Fall 2023

- Personal Competency: Understanding one's own strengths and challenges as a designer, thinker, and writer in engaging in collaborative processes.
  Benchmark: 100% of students demonstrate understanding.
  Result: 100% of students met the goal each semester.

- Interpersonal Competency: Leading design processes, including groupwork with graduate student classmates and coordinating undergraduate students in design charettes.
  Benchmark: 100% of students demonstrate understanding.
  Result: 100% of students met the goal each semester.

- Social Competency: Leading and engaging with stakeholders in the design process, including local high school students, community members in Medina, NY, and family members of the deceased for whom the memorial is designed.
  Benchmark: 100% of students demonstrate understanding.
  Result: 100% of students met the goal each semester.

- Structural/Systems Competency: Understanding interrelated roles between government (e.g., NYPA) and non-government (e.g., Interboro) roles in carrying out public projects.
  Benchmark: 100% of students demonstrate understanding.
  Result: 100% of students met the goal each semester.

Situated Technologies: Spring 2023

- Personal Competency: Within groups, each student takes on one specific role to complete the design-build task, e.g., digital design and modeling lead, fabrication lead, project management lead, etc.
  Benchmark: 100% of students assume at least one role.
  Result: 100% of students met the goal.

- Interpersonal Competency: Students utilize digital strategies and tools to manage 3D modeling and fabrication workflows between team members.
  Benchmark: 100% of students demonstrate understanding.
  Result: 100% of students met the goal.

- Social Competency: Students analyze a specific trade or area of expertise adjacent to architectural design but pertaining to construction or the arts. Research is presented to the class as a shared case study.
  Benchmark: 100% of students demonstrate understanding.
  Result: 100% of students met the goal.

- Structural/Systems Competency: Research on a chosen trade leads students to develop projects into an innovative, reverent, and non-hierarchical design-build process.
  Benchmark: 100% of students demonstrate understanding.
  Result: 100% of students met the goal.

Situated Technologies: Fall 2023

- Personal Competency: Students develop personal leadership skills in conceiving, designing, and presenting novel and innovative applications for advanced representational techniques involving an urban digital twin.
  Benchmark: 100% of students demonstrate understanding.
  Result: 100% of students met the goal.

- Interpersonal Competency: Teams consisting of 2-3 students develop 3D models and digital simulations that share a common base map, the characteristics of which (scale, graphic conventions, etc.) are negotiated between representatives of the various teams.
    Benchmark: 100% of students demonstrate understanding.
    Result: 100% of students met the goal.

- Social Competency: Through lectures and media screenings students gain an understanding of forms of algorithmic bias and discrimination in smart urban systems and infrastructures.
    Benchmark: 100% of students demonstrate understanding.
    Result: 100% of students met the goal.

- Structural/Systems Competency: Through readings and discussions, students understand issues related to algorithmic governance in the deployment of urban digital twins.
    Benchmark: 100% of students demonstrate understanding.
    Result: 100% of students met the goal.

Urban Design: Spring 2023

- Personal Competency: Students present their case studies from the perspective of their positionality relative to the positionality of potential users in communities that are not their own.
    Benchmark: 100% of students demonstrate understanding.
    Result: 100% of students met the goal.

- Interpersonal Competency: Students use 3D modeling and storyboarding to graphically narrate their proposals for non-English speaking community residents.
    Benchmark: 100% of students demonstrate understanding.
    Result: 100% of students met the goal.

- Social Competency: Students analyze comparative case studies of housing projects, one “turnkey” and complete project designed by architects, and one designed by engineers and communities that families can progressively expand as their resources and labor permit.
    Benchmark: 100% of students demonstrate understanding.
    Result: 100% of students met the goal.

- Structural/Systems Competency: Students create mappings that examine the political economy of urban redevelopment at macro (urban), meso (neighborhood), and micro (building) scales.
    Benchmark: 100% of students demonstrate understanding.
    Result: 100% of students met the goal.

Urban Design: Fall 2023

- Personal Competency: N/A for this course.
    Benchmark: N/A
    Result: N/A

- Interpersonal Competency: Students prepare a shared presentation with Master of Real Estate Development students to a community jury that explains their project goals, scope, design, and development.
    Benchmark: 100% of students demonstrate understanding.
    Result: 100% of students met the goal.

- Social Competency: Students analyze how their project site fits into the spatial context of the City of Buffalo, its demographic context of segregation, and its cultural context of redlining and urban renewal. They analyze how the design, planning, and development professions have acted as agents in these processes.
    Benchmark: 100% of students demonstrate understanding.
    Result: 100% of students met the goal.

- Structural/Systems Competency: Students are engaged in multidisciplinary teams of architects and real estate developers under a real project jury. Within these teams, students explore the role of each profession in setting goals, collaborating, and delivering outcomes deemed appropriate to present to the project jury. Each team member takes responsibility for aspects of creating these outcomes, and teams interact in a constant feedback loop between design and development.
    Benchmark: 100% of students demonstrate understanding.
    Result: 100% of students met the goal.

Appendix 1: Assessment Plan: Revised from Appendix 3 of the APR

The assessment plan below is copied from the APR with relevant updates to PC.6 highlighted **in red** in the tables below.

The Department of Architecture at UB has a four-phase, multi-modal approach to program assessment. Before articulating this assessment plan, some background information is important.

Impacts of the COVID-19 Pandemic. The COVID-19 pandemic was disruptive across all sectors, geographies, and populations in society – with minorities, older-adults, people with disabilities, and children especially adversely affected. The disruption also impacted architectural education, as professors had to abruptly modify pedagogy and learn new teaching skills, administrators had to manage uncertain budgets and personnel challenges, and student resiliency was tested. Coincidentally, the newest NAAB conditions and procedures were finalized in January 2020 and programs, like UB's Department of Architecture, had just begun faculty conversations when the pandemic-lockdowns began in March. Subsequently, the NAAB postponed all accreditation reviews by a year, as programs responded to new state and institutional policies and procedures, addressed student and faculty crises, and continued to adjust courses and delivery methods throughout AY20/21 and AY21/22. The Department of Architecture at UB led the institution in the return to in-person learning, while making strides on mapping the curriculum to the NAAB criteria. Assessment, however, was delayed not only due to "bandwidth" but also due to concerns about the utility of assessing student learning amidst such an idiosyncratic moment in architectural education. As such, the department has launched a phased approach to assessment, starting with the collection of quantitative baseline data from fall 2022 and spring 2023 courses, as outlined in the table below.

Assessment Paradigms. This phased plan has carefully considered the strengths and limitations of various assessment strategies. The literature on program assessment in higher education has grown considerably in recent years. This includes a deeper understanding of the three types of assessment:

- Capstone Assessment: The evaluation of all learning outcomes occurs at the end of the program, such as an integrative, reflective portfolio.
- Milestone Assessment: This involves the evaluation of clusters of learning outcomes at specific points in the curriculum, such as a pivotal or culminating structures, history, or design course.
- Mapped Assessment. This method reviews specific learning outcomes within individual courses, such as exams, papers, or projects.

UB's Department of Architecture has adopted a phased approach working from the last type – mapped assessment.

Learning-sciences literature also defines three assessment philosophies:

- Functional Assessment (or "Curriculum as Fact"): In this "assessment ***of*** learning" paradigm, students acquire knowledge (not create it), while assessment is independent of learning activities, such as in standardized tests or final exams.
- Naturalistic Assessment (or "Curriculum as Activity"): This "assessment ***for*** learning" paradigm emphasizes processes and qualitative information, rather than the quantitative approach of the previous category. Portfolio review, development, and re-review is one example.
- Emancipatory/Critical Assessment (or "Curriculum as Inquiry"): In this somewhat radical "assessment ***as*** learning" paradigm, evaluation and learning are synonymous and integrated. Student self- and peer-evaluations are common in this paradigm, where the acts of learning, reflecting, and grading are one in the same.

For practical purposes and to establish a baseline, the department has begun with the first paradigm – functional assessment – by collecting student pass rates for assignments, exams, and projects in core courses.

Nevertheless, architectural education involves several courses and learning activities related to the second category, which the department plans to more systematically document in the future. Likewise, faculty in the department have also begun to explore "radically inclusive pedagogies," such as in the history and structures curricula, which align with the third paradigm.

Phases and Modes of the Assessment Plan. Stemming from the above, the department's phased assessment plan is as follows:

- Phase 1 (AY22/23): Mapped, Functional Assessment. Collect and assess quantitative data on student pass rates at the course level related to each PC and SC.
- Phase 2 (AY24/25): Milestone, Naturalistic Assessment. Collect and evaluate qualitative capstone and milestone information, such as portfolios, and compare this information to the above data points.
- Phase 3 (AY25/26): Critical Assessment. Identify courses for piloting in the "Curriculum as Inquiry" paradigm, recollecting the data articulated in phases 1 and 2, and comparing across the paradigms.
- Phase 4 (AY26/27): Meta-assessment and Revisions. Redrafting this assessment plan based on the findings and lessons learned above.

A summary of Phase 1 (Mapped, Functional Assessment) for fall 2022 and spring 2023 courses is outlined below. For each course, professors identified the assignment, project, or exam with the learning outcome(s) most aligned with each PC/SC; in some cases, this was a comprehensive exam, final project, or final course grade.

<u>The aspirational benchmark (goal) for most items listed below is 93%.</u> This corresponds to the university's retention goal; given the tight, linear sequence of studio, history, structures, and environmental systems courses, failure in any course can result in increased time to degree or leaving the major. The benchmark for final courses, e.g., ARC 605/606/607/608 studios, is 100%.

PC/SC	Course: Assignment	Result	Planned Action
PC1	• ARC 582: professional practice mid-term exam	• 100% passed	• none
	• ARC 582: comprehensive exam	• 100% passed	• none
PC2	• ARC 201: final project	• 95% passed	• none
	• ARC 202: project #1	• 97% passed	• none
	• ARC 202: project #2	• 99% passed	• none
	• ARC 302: project #3	• 100% passed	• none
	• ARC 312: assignment #7	• 77% passed	• changes to the teaching team and course assignments are planned for spring 2024
	• ARC 403: assignment #5	• 100% passed	• none
	• ARC 411: final project	• missing data	• reassess
	• ARC 412: rendering	• 99% passed	• none
	• ARC 502: project #3a-b	• 100% passed	• none
	• ARC 503/603: semester project	• 100% passed	• none
	• ARC 504: project #1b	• 100% passed	• none
	• ARC 504: project #1b	• 100% passed	• none
	• ARC 512: project #7	• 91% passed	• the department is implementing a Digital Tutoring Center in fall 2023
	• ARC 605/606/607/608: varies by GRG studio	• 100% passed	• pass rates were assessed across all GRGs; we will begin to assess qualitative differences
	• ARC 611: final drawings	• 95% passed	• none
PC3	• ARC 241/541: project #2	• 96% passed	• none
	• ARC 573: comprehensive assessment	• 97% passed	• none
	• ARC 575: synthesis project and reflection	• 97% passed	• none

PC4	• ARC 231/531: assignment #3 • ARC 234/534: assignments #1-2 • ARC 362/562: paper #3 • ARC 6XX: Intellectual Domain Seminars	• 99% passed • 100% passed • 97% passed • 100% passed	• none • none • none • pass rates were assessed across all GRGs; we will begin to assess qualitative differences
PC5	• ARC 362/562: paper #3 • ARC 453/553: final project • ARC 5XX/6XX: technical methods seminars • ARC 605/606/607/608: varies by GRG studio	• 97% passed • 88% passed • 100% passed • 100% passed	• none • the teaching assignment and pedagogy for fall 2023 are being transformed • pass rates were assessed across all GRGs; we will begin to assess qualitative differences • pass rates were assessed across all GRGs; we will begin to assess qualitative differences
PC6	• ARC 102: team-building workshop • ARC 301: final project • ARC 403: assignment #7 • ARC 504/604: project 2a • ARC 582: quizzes • ARC 605/606/607/608	• 100% completion • 98% passed • 100% passed • 100% passed • 98% passed • 100% passed	• developing qualitative methods of assessment commensurate with this criterion • none • none • none • none • pass rates were assessed across all GRGs; we will begin to assess qualitative differences
PC7	• AED 199: final grade • ARC 101: work habits learning objectives • ARC 501: student experience	• 84% C or higher • class average 13/16 pts. • interviews	• pass rates and grades for these courses are consistent with developmental courses; we are developing a qualitative approach more commensurate with this criterion • see attached information in the digital team room
PC8	• ARC 231/531: assignment #2 • ARC 234/534: assignment #3 • ARC 362/562: paper #3 • ARC 403: assignment #7	• 97% passed • 100% passed • 97% passed • 100% passed	• none • none • none • none
SC1	• ARC 202: project #2 • ARC 403: assignment #6 • ARC 573: project • ARC 575: semester project	• 98.5% passed • 100% passed • missing data • 97% passed	• none • none • reassess • none
SC2	• ARC 575: semester project • ARC 582: comprehensive exam	• 97% passed • 100% passed	• none • none
SC3	• ARC 403: assignment #4 • ARC 582: comprehensive exam	• 100% passed • 100% passed	• none • none
SC4	• ARC 241/541: project #4 • ARC 352/552: drawing D	• 84% passed • 100% passed	• determine why some students are struggling, and implement pedagogical changes • none

	• ARC 442/542: exam #2 • ARC 442/542: assignment #2 • ARC 453/553: final exam • ARC 455/555: project • ARC 575: semester project	• 89% (442), 80% (542) • 98% (442), 100% (542) • 67% passed • missing data • 97% passed	• determine why some students are struggling, and implement pedagogical changes • none • the teaching assignment and pedagogy for fall 2023 are being transformed • reassess • none
SC5	• ARC 301 • ARC 503/603	• criterion-based rubric	• faculty utilized the rubric to assess student progress and to deliver guidance
SC6	• ARC 302 • ARC 504/604	• criterion-based rubric	• faculty utilized the rubric to assess student progress and to deliver guidance

As indicated in the track matrices, the department also carried out enhanced assessments for key courses. These assessments are included in the digital team room within the respective PC and SC folders. These courses will continue to be assessed biannually according to the quantitative methods above. Phases 2 and 3 of the assessment plan will integrate these courses as follows:

PC/SC	Course	Phase 2 Method	Phase 3 Method
PC1	• ARC 582	Interviews with randomized sample of students.	Integration of peer-assessment module.
PC2	• ARC 302 and ARC 503	Faculty committee review of randomized sample of student portfolios.	Integration of peer-assessment module.
PC3	• ARC 575	Faculty committee review of randomized sample of student project submissions.	Integration of peer-assessment module.
PC4	• ARC 362/562	Faculty committee review of randomized sample of student essays.	Integration of peer-assessment module.
PC5	• ARC 605/606/607/608	Faculty committee review of randomized sample of student portfolios.	Integration of peer-assessment module.
PC6	• ARC 582 • ARC 605/606/607/608	Interviews with randomized sample of students.	Integration of peer-assessment module.
PC7	• AED 199 • ARC 501	Interviews with randomized sample of students.	Integration of peer-assessment module.
PC8	• ARC 362/562	Faculty committee review of randomized sample of student essays.	Integration of peer-assessment module.
SC1	• ARC 575	Faculty committee review of randomized sample of student project submissions.	Integration of peer-assessment module.
SC2	• ARC 582	Interviews with randomized sample of students.	Integration of peer-assessment module.
SC3	• ARC 582	Interviews with randomized sample of students.	Integration of peer-assessment module.
SC4	• ARC 442/542	Faculty committee review of randomized sample of student project submissions.	Integration of peer-assessment module.
SC5	• ARC 301 • ARC 503/603	Faculty committee review of randomized sample of student portfolios.	Integration of peer-assessment module.
SC6	• ARC 302	Faculty committee review of randomized	Integration of peer-

	• ARC 504/604	sample of student portfolios.	assessment module.

Additional Program-level Assessments and Interventions. As evidenced in the data above and as stated in section 5.2.3, a strategic goal of the department is recruiting and retaining diverse, talented students, and supporting student success. The School of Architecture and Planning has a first-to-second-year undergraduate student retention rate (91%) that exceeds the university retention rate (87%), which is significantly higher than the national average (67%). Another measure of the department's positive teaching and learning culture is evidenced in the four- and six-year graduation rates of architecture undergraduates – 63% and 75% respectively for the incoming fall 2016 class – higher than the national average (by eight percentage points) among public universities. Success is particularly strong for architecture students who attain junior standing. For students who entered UB in fall 2017 (from any major) and who ascended to the junior year of the architecture program, 87% and 100%, respectively, graduated in four or six years. More than 30% of this cohort graduated in less than four years due to summer study abroad; at times, this number has exceeded 40%.

To complement the above information, the department also gathered information on DFR rates (the percentage of students who receive a "D" or "F" grade or who resign a course) for fall 2022 and spring 2023. The highest DFR rates in the architecture program are:

- ARC 121: Introduction to Architecture – 20%
- ARC 241: Environmental Systems 1 – 13%
- ARC 575: Environmental systems 3 – 11%

The instructor and department have continued to track student challenges in ARC 121. Beginning in AY22/23, the department has developed a new approach to the course. The course will be taught both fall and spring semesters, enabling several possibilities. First, students who fail or resign the course will be able to retake the course the following semester (not a year later). Second, as the course is offered university-wide as a general-education course, the fall course will focus on architecture majors, while the spring semester will cater to non-architecture majors (primarily). Third, the department can pilot two different instructors and pedagogies for the fall and spring terms to better assess student learning challenges and solutions. The department has yet to develop interventions for ARC 241 and 575, as most of the above percentages are attributable to resignations early in the semester, not D or F grades. The next step is a deeper assessment of the precise factors contributing to the resignations, which may be non-academic.

Outside of ARC 575, the highest DFR rates at the upper-division and graduate level are seminar courses. In these small-enrollment classes, 1-2 students, mostly commonly resigning not failing or earning a D, can significantly skew percentages. Resignations are often attributable to physical- or mental-health issues, family situations, time management, or other non-academic factors. As such, the department does not plan any curricular or pedagogical interventions but will remain focused on delivering comprehensive student services.