

NJIT Hillier College of Architecture and Design Pandemic Recovery Plan (DRAFT 5/18/20)

Phased Recovery Operations

The College's leadership team has developed the following Pandemic Recovery Plan (PRP) scenarios for the fall term and beyond as we continue to make preparations to ensure that we continue to offer a high-quality educational experience for our students, whether in a fully physical or virtual environment or using a converged learning model. As President Bloom wrote:

“Our planning for return to in-person or hybrid operations will be consistent with state and federal guidelines and will be shaped by two key priorities: the health and safety of NJIT community members and the delivery of a high-quality academic experience.”

In short, we will follow the plans issued by the University leadership and the health and safety mandates issued by state and federal authorities, implementing Recovery Phases 0 through 3 until we reach full recovery from the worst effects of the COVID-19 global pandemic.

Safe Instructional Delivery

As we continue to meet our primary mandate to provide an excellent design education to all students in the Hillier College, the safety and health of our community comes first. It is expected that enhanced cleaning protocols will require increasing frequency and quality of cleaning and that we will integrate antimicrobial technologies in all spaces in our buildings throughout all Recovery Plan Phases.

Even with these protocols in place, it is unlikely that all faculty, staff, and students will return to campus all at once until we reach full recovery. For example, some faculty and staff members, because of age, compromised immunity, or other health risks, may find it too risky to be physically present in the building. Some faculty, staff, and students will work on campus and some will work from home until there is a proven vaccine or treatment protocol.

Each Phase of the Pandemic Recovery Plan outlined below provides a path that supports a safe and effective academic experience for each member of the community irrespective of individual circumstances.

Recovery Phase 0 Elements

All instruction is delivered in a virtualized environment dictated by state mandated physical campus closure as experienced during the second half of the spring 2020 semester. If we have to work this fall under similar state mandates, we have proven that the virtual component of Hillier's synchronous converged learning model works very well by leveraging distributed student-owned high-power workstations. Whether on campus or off, our design students are apex power users dependent on high CPU and GPU throughput to execute their design work. This is a hallmark of their experience which requires students to immerse themselves in rich

virtual design environments even when physically seated in a physical studio space. The current familiar, dependable, and effective workstation model has produced generally positive results from the student perspective throughout the spring 2020 campus closure. The implementation of Recovery Phase 0 operations will require ALL freshmen including A+D students, who typically work in computer labs for their first year, to purchase a college specified workstation prior to the start of the fall 2020 semester while sheltering in place at home.

Having worked for the last two months of the spring 2020 semester in such conditions, we have proven that we can, paraphrasing the 2013 NJIT Convergence Report, “achieve functional convergence of the physical and virtual campus, with no functional distinction between face-to-face and online courses.” As we recover during the coming months, “every student will have the opportunity to transparently engage in a course either remotely or in a classroom environment as these modalities operate synergistically in an anywhere classroom, with both modalities occurring in the same course section. Because of individual circumstances, one mode may have advantages for a given student at a given time, but the tools and venues open to all students are expected to provide equivalent outcomes. Academic standards will be consistent because course content and learning outcomes will stand independent of delivery mode.”

Even as we continue to transition through the various PRP Phases, we do not expect to return to the *status quo ante*. As we move in and out of Recovery Phase 0 into Phases 1 through 3 and then onto a full recovery, we will need adequate technology and service infrastructure to support a robust converged teaching and learning environment to provide maximum flexibility and convenience while accommodating a growing variety of design student preferences and needs.

Key added technological components include: 42 loaner laptops with basic design software for students with demonstrated need who don't have a device at home, 42 tablet computers with basic software to allow teaching staff to teach design studios in a converged teaching/learning mode through extensive sketching using an interactive graphic interface, 16 mobile converged learning/teaching units to connect studio spaces to remote learners, 250 Pluralsight user licenses providing remote access to high-quality design software training modules assigned in Canvas, 50 teleconferencing cameras and 4 Ipevo Document Cameras to share digital and analog teaching materials in a converged learning environment.

Recovery Phase 1, 2, and 3 Common Elements

The Hillier College has embraced the full array of instructional delivery options with varying degrees of virtual (remote) and physical (face-to-face) components in an evolving converged learning model applied to a studio-based design education. Progressing from Recovery Phases 1 to 3 will allow an increasing number of students, faculty and staff to be present on campus and fewer remaining at home. The use of converged learning modes can vary from program to program, from year to year (i.e. freshman vs. sophomores, juniors and seniors), and even from course to course, and we need to be able to smoothly transition between them, as circumstances dictate.

Based on the latest information regarding COVID-19 and the expected need for social distancing to continue in the fall, it is probable that even with a lifting of state restrictions on campus closures, we will start this fall in Recovery Phase 1 recovery mode and then switch to a

higher phase if the situation changes for the better or go back to Recovery Phase 0 if it worsens, i.e. if there is a second wave of infections requiring a full campus closure. As of now, without a fully available and proven COVID-19 vaccine and/or treatment, it seems unlikely that we will be able to return to a "full normal" this fall. In all scenarios, we are planning for a highly adaptable mode of operation.

Throughout all recovery phases, classes will be delivered synchronously. As is already the case in converged learning models, certain components can be delivered asynchronously; for example, lectures in large classes can be prerecorded and viewed by students when convenient. During Recovery Phases 1 and 2 we expect that we will need to continue to practice strict social distancing measures and require the use of masks and other PPE for anyone entering the building. To make social distancing possible in our offices, classrooms and studios, we will need to "de-densify" the spaces in the building. We may implement "rolling occupancy" in HCAD to enable safe distancing, limit the number of people using each space, rethink underutilized space (Weston Gallery) to create supplemental learning and working environments, and provide hybrid setups for digital and physical use in studios, classrooms and offices.

Recovery Phase 1 Elements

During a fall Recovery Phase 1 roll out, we plan to have the freshmen and a few other small A+D sophomore and "maker" classes be physically present on campus to help them develop a sense of connection to our campus community and a degree of familiarity with our facilities and our ways of functioning as an educational institution. In an attempt to "de-densify" the building, we expect that other groups will be present on campus in limited fashion.

Ensuring proper social distancing in classrooms will significantly reduce the number of people who could be in them. For example, Weston One, which has a seating capacity of 160 people, will resemble a "small" seminar room with only 13 students present if every 4th seat in a row and every third row is occupied and only 26 students present if every 3rd seat and every second row is occupied. We will have serious physical limitations to conduct in-person classes in Weston Hall with proper social distancing measures in place. The limited availability of large spaces may require the scheduling of some class meetings on Saturdays or even Sundays.

Studios and Labs

A freshmen class of approximately 90 architecture students requires 6 studios at normal density of 15 students in each. If we reduce density to between 30% and 50%, we would use 18 studios or approximately 45% of our total capacity. Art and Design freshmen use 3 computer labs that are considerably more tightly packed than a typical design studio. The 60 workstations in these labs will have to be distributed over 10 studios. The remaining 12 studio spaces can accommodate three to six upper studios that depend on making physical prototypes (as in industrial design).

To maintain a greater sense of community in each studio and in each cohort, we should conduct some of the group crits and reviews in-person in Weston Hall with proper social distancing and only if the rate of infection is low. These studio meetings would have to be delivered in a hybrid mode, with some students (and even studio critics) participating remotely.

Fabrication shops will provide limited and essential coverage to support specific on-campus classes and faculty research agendas.

Recovery Phase 2 Elements

During Recovery Phase 2, we will look much like Phase 1 but will implement rolling course instruction (in all studio sections) and alternating more in-person instruction with remote learning on a regular weekly or bi-weekly schedule. Recovery Phase 2 will still require most students to work at home since in a de-densified Weston hall, studio capacity will be reduced to approximately 30% of normal occupancy.

All Phase 1 PPE-use protocols remain in effect. Fabrication shops and maker-spaces will be open to more students throughout the week by appointment but must adhere to strict social distancing practices to protect students, faculty and staff.

Recovery Phase 3 Elements

In Recovery Phase 3, we re-densify studios and classes with PPE to be worn when in the building. Normal scheduling for all classes, studios and shops will resume. Students and faculty who wish to continue to deliver some or all course components using a converged model for safety or pedagogical reasons are encouraged to do so.

Full recovery

As the Hiller College returns to normal operation without further need for any special PPE or spatial reconfigurations of our physical facilities, we are planning to fully leverage the experience with intensive converged learning practices to expand how we deliver high-quality education to benefit an increasingly diverse student body. All sunk costs incurred to respond to this emergent situation will continue to provide a benefit. Resources and new practices will be redirected to build a College of Architecture and Design that is better positioned for a multitude of 21st century challenges, echoing President Bloom's report:

“We also are assessing what we have learned from our initial response to COVID-19 and will seek to apply the lessons we have learned in ways that make us a better university in the future.”