

In addition to the following ARCH 463/464 Option Studio sections, qualified students can also enroll in one of the following studio courses to fulfill an Options studio requirement:

- [ARCH 601 Urban Design Studio I](#) (BS/MS only)
- [AD 463 Collaborative Design Studio](#) (click hyperlink for studio selection form)

Commercial Conversions

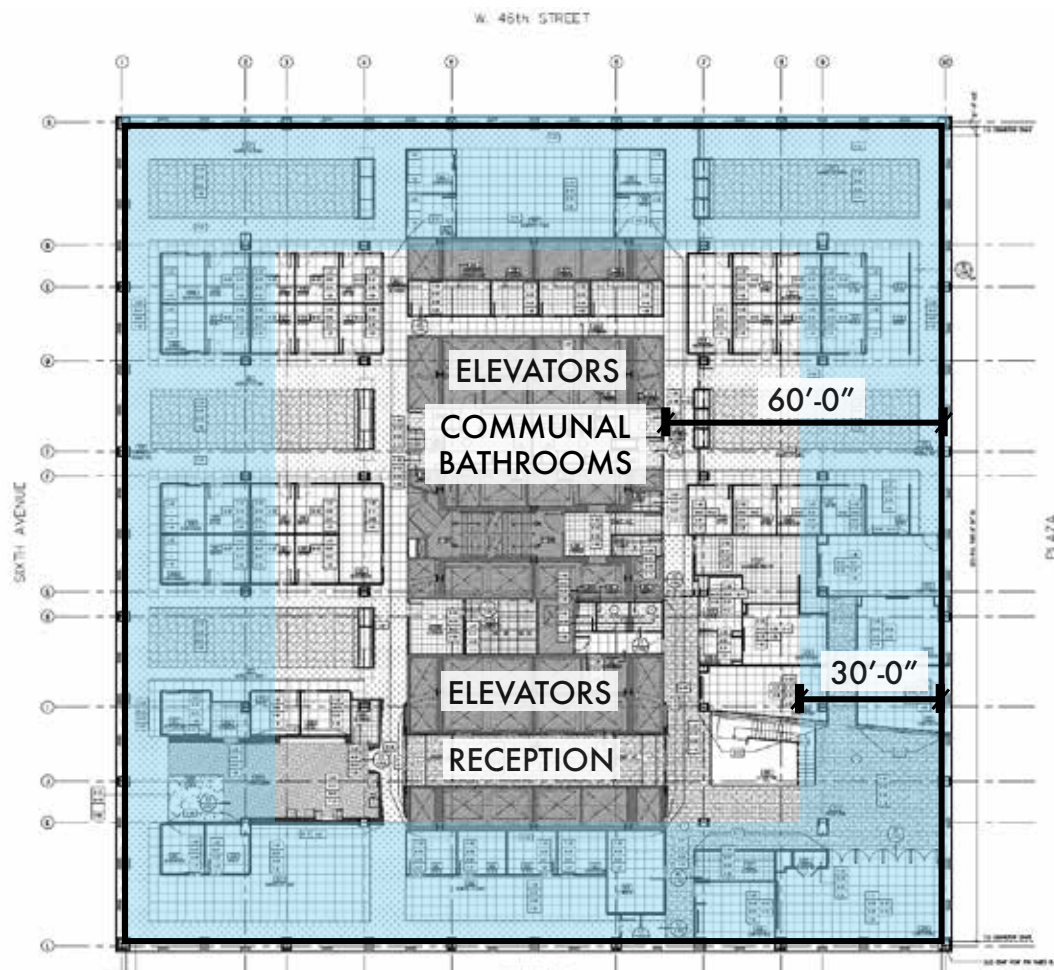
Carrie Bobo, RA

New Jersey Institute of Technology

This studio will explore innovative options for converting large floor-plate commercial office buildings into housing. The students will work directly with both commercial developers and community organizations to develop a mix of affordable/supportive and market-rate apartments within an existing under-used commercial office building.

Many cities are looking to convert existing office buildings to apartments, efficiently solving two problems at once: the glut of post-pandemic empty office space and the shortage of housing, while limiting demolition waste and reinvigorating once vibrant neighborhoods suddenly devoid of street life. As in many things, the idea is simpler than its implementation. In contemporary large floor-plate office buildings, innovative design solutions are needed to ensure access to the fresh air and daylight that are essential to our health and well-being.

The studio will emphasize the exploration of architecture at multiple scales, day-lighting strategies, and communication via narrative and diagramming. Students will work collaboratively, directly with outside stakeholders, experiencing an education that prepares them for the realities of the architectural profession, encourages innovation through conceptual thinking, underscores the importance of social equity, and confronts climate change.



New York City Building Code 1203.4.1.2.4 Maximum Depth of Room

No part of any room shall be more than 30 feet (9144 mm) from a window opening onto a street or yard unless such room also opens onto a court. . .



New Jersey Institute of Technology | Hiller School of Architecture
Options Studio: Hemptopia: Construction in real time | Fall 2023

F23 HEMPTOPIA: Construction in Real Time Instructor: Caitlin Charlet M/TH

Hempcrete is a bio composition that is naturally regenerative, locally harvestable, insulative, fireproof and carbon-sequestering, which means that projects that incorporate it can achieve net zero energy use and become carbon positive over time. It is a radical solution to reduce carbon emissions of our built environment. The possibility of uses span from carbon conscious floors, roofs and foundation material as a natural insulation setting the stage for further focused testing and development of modern system combinations. This positions Hempcrete as a building material that not only is inclusive of but fast tracks an evolution to the foundational principles of sustainable building materials.

The basis of this options studio is a deep dive into research and development of holistic methodologies within the construction practicalities of Hempcrete construction. Beginning with thorough historical research of its origins and continuing throughout the semester students will participate in various workshops and lectures from industry professionals as well as in person site visits of multiple new builds in the tri-state area. We will be working with a New Jersey based farm and a community site for affordable housing design that incorporates not only hempcrete but also LEED AP elements in preparation to take the exam at the end of the session. As well as testing durability, decomposition, regional use and code, technical innovations and material resources and modernization of modular panel systems. Students will go on to fabricate, test and iterate various new possibilities and combinations of multiple material assemblies which will further develop through experimentation to develop their own techniques of fabrication and installation in combination with design and the environment. The semester will culminate in students constructing their own 1:1 scaled structure. These investigations will be understood as catalysts for further open experimentation, research and design alternatives that will live online within a public archive for the wider community use.

/imagine [prompt:] architecture and artificial intelligence

[theme:] Recent advances in artificial intelligence (AI) offer new ways for architects to approach design projects by enabling them to generate new ideas, optimize design solutions, and enhance the overall quality of their work. This studio will explore how various AI tools can augment the design processes, from conceptual design to ambiental simulation, by integrating cutting-edge technology such as image-to-text and text-to-image generators, machine learning (ML), and natural language processing (NLP).

Mitsuko: *Jun, why do you only take pictures of the rooms we stay in... and never what we see outside, while we travel?*

Jun: *Those other things are in my memory. The hotel rooms and the airports are the things I'll forget.*

Mitsuko: *Yeah, I guess so...*

from "Mystery Train" ("One Night in Memphis"), dir. Jim Jarmusch, 1989.

[program:] Urban hotel in Newark.

On a vacant site in downtown Newark you will design a 7-8 story hotel with some publicly accessible programmatic components. We will begin by examining precedents that are typically referred to as "boutique" or "designer" hotels, i.e., hotels that aim to avoid the banality of convention and that strive for a certain look, character, or esthetic "edge". We will then ask the following questions: What does it mean to be a tourist or a business traveler in downtown Newark? What would they need in an urban hotel, what would they expect, what would they desire? Is it comfort and "domesticity" or is it something else? What would make your hotel unforgettable? What is the relationship of space and memory? What do we remember about spaces where we stay, the cities that we visit?



/imagine [prompt:] architecture and artificial intelligence (first iteration)



/imagine [prompt:] a contemporary hotel in newark (third iteration)



Credit: Resilient Hope Site and Community Group

DESIGNING COMMUNITY

A NEIGHBORHOOD CENTER FOR NEW HOPE VILLAGE

STUDIO AIMS AND OUTPUT

Over the course of the last 2 years, NJIT students have been involved in helping to shape and reimagine the future of the Hope Village program in Newark. “Hope Village” was an initiative started in 2021 by Mayor Baraka to provide supportive housing communities for our neighbors without addresses. “Hope I” opened in March 2021 and has seen huge success in helping to transition some of the most vulnerable members of our community to permanent housing. Hope II is scheduled to open in May 2022.

Hope II, or New Hope Village builds upon the success of Hope I - providing a supportive housing community that features clustered residential units with interior shared living spaces and bathrooms in lieu of individual bedroom units. Hope II is located in the South Ward of Newark in a close-knit and welcoming community. As a part of the community engagement process for Hope II, the city held numerous meetings to discuss the vision and development of the village with local leaders and neighbors. As a part of that process, the community has expressed a desire to integrate Hope II more fully into the surrounding neighborhood and provide spaces, resources, and services on site that could be used not only by the residents of Hope II but also by the broader South Ward community.

The mandate for this studio is to continue the process of community engagement and work with the city, the service providers, the residents of Hope II, and the residents of the South Ward to reimagine a portion of the Hope II site. Students will help lead the process of visioning, soliciting feedback, and synthesizing design ideas and community needs into design proposal(s) to be re-presented back to the city and the community at the end of the semester.

Throughout the course, you will learn various design principles and techniques that will help you develop a comprehensive and practical design proposal. You will be encouraged to think outside the box, asked to respond to impromptu deadlines and reviews, and consider innovative solutions that integrate design principles and meet the needs of the community. Be prepared to work in groups, develop rich conceptual and practical designs, and engage with communities beyond the design community at NJIT.

Moises B. Quintero Morales

February 26, 2023

Summer Course Proposal

ARCH 463/4: From waste to building material - Reducing and rethinking waste

Construction and related wastes from building or manufacturing process pose a problem to our environment. As designers, architects and facilitators we have a shared responsibility along with the construction and manufacturing companies to mitigate waste. By doing so, not only will be eliminate unnecessary wastes from entering our environments, but it may also lead to a reduction in costs, and/or potential entrepreneurial endeavors.

The premise of the studio is to reframe what *waste* is and what it becomes once past its primary use. Students will take a position on what form of waste they will focus on such as construction, manufacturing, home products etc. They will then leverage their skills (computational, fabrication, design etc.) to design an alternative ending to that *waste*. Emphasis will be placed on interacting and talking with their communities to identify any immediate needs.

Potential skills students can gain are critical thinking, decision tree/making, UI/UX, community involvement, interviewing, research skills, and fabrication. A general takeaway includes leaving the course with an understanding that the world is open to solutions if you keep your eyes open for it.