

Type of Course: Graduate Studio + Research Workshop/Design Seminar M.Arch 2nd yr: ARCH 73100 Arch Studio III (6 cr) + ARCH 73501 Research Workshop (3 cr) M.Arch 3rd yr: ARCH 85100 Advanced Studio (6 cr) + ARCH 85200 Research Workshop (3 cr) MS Arch:ARCH 91102/93103 Advanced Studio (6 cr) + ARCH 91202 Design Seminar (3 cr)

Class Meetings: Workshop M 9:30-12:20; Studio M/TH 2:00-5:20pm
Office Hours: by appointment (Mondays 12:30 - 2:00 is a good time)

Instructors: Kaja Kühl, Anoushae Eirabie Contact: kkuehl@ccny.cuny.edu,

Location: 221

Semester/Year Fall 2024

Homegrown -

Designing Housing as Carbon Storage





Left: Straw panel construction using EcoCocoon prefabricated panels, right: Spraying hemp lime at Wally Farms

GENERAL DESCRIPTION

STUDIO: This advanced studio explores an architectural project through extended design research and in-depth building design propositions. Engaging with a variety of contemporary architectural design topics, students analyze and synthesize human, socio-cultural, contextual, technical, and regulatory forces. Project work includes quantitative investigation of environmental impacts and articulation of mitigation strategies. Independent research methodologies are supported, and student work is expected to achieve the quality of a well-developed architectural design thesis and design proposition.

RESEARCH WORKSHOP: This required seminar course focuses on special topics of study that support and broaden the design studio curriculum. Students co-enroll in this course with their architectural design studio.

OVERVIEW

Homegrown

- Designing Housing as Carbon Storage

Discovering the landscapes, forests and farms in the American Northeast as sources for new bioregional construction

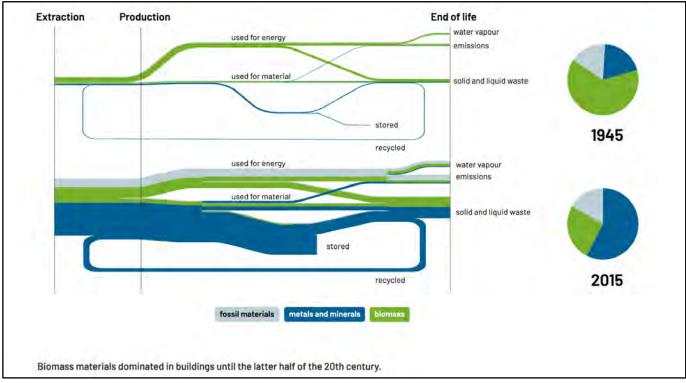


Flat House / Practice Architecture + Material Cultures, Image Credit: Oskar Proctor

This studio examines the complex relationship between a growing housing crisis in New York and the unprecedented challenge to rapidly transform the built environment from a major emitter of greenhouse gasses to a central solution to the climate crisis. To do this, we will explore landscapes, forests and farms in the American Northeast as sources for new bioregional construction methods and develop prototypes for low-rise high-density housing that can act as carbon storage. In the research workshop, students will produce a collective body of knowledge on regionally grown and low-carbon materials, such as straw, hemp, willow, poplar, corn, reed or seaweed. Using a combination of mapping, data visualization, hands-on material research and life cycle analysis, this research will guide a design process for a prototypical multi-unit residential building for a site in Newburgh, New York.

SPECIFIC DESCRIPTION

The built environment sector is by far the largest emitter of greenhouse gasses, responsible for at least 37% of global emissions. Until recently, little attention has been paid to the material carbon impacts of the construction and retrofitting of buildings, with the majority of focus on their operational performance. Yet our buildings are constructed using materials, components, and products. These materials have to be extracted from the ground or grown, transported to a facility for processing, transported again to be transformed into a product, and finally transported to a construction site. All of these processes result in greenhouse gas emissions. Four materials used in construction – cement, iron, steel and aluminum – account for 15% of all greenhouse gas emissions globally.



Global material flows, by type, 1945 versus 2015, Source: UN Environment Programme & Yale CEA

At the same time, New York faces a severe housing shortage in both rural and urban areas. Rather than putting the need for new construction in opposition to our climate goals, substituting carbon intensive materials with regenerative resources and materials from the biosphere, can be a key approach to decarbonizing our built environment.

Re-introducing the use of carbon-storing bio-based materials in our homes would not only reduce the overall carbon impact of construction, but it could also produce additional positive outcomes, including improvements in biodiversity, indoor air quality and the safety, security and desirability of jobs in construction.

¹ United Nations Environment Programme (2022). 2022 Global Status Report for Buildings and Construction: Towards a Zero-emission, Efficient and Resilient Buildings and Construction Sector. Nairobi.

² Architecture 2030. https://www.architecture2030.org/why-the-built-environment/ (for scale, emissions from aviation account between 2 and 3%)

- What types of materials are grown in the American Northeast and how can they be harnessed to serve as structure, insulation or finishes in housing?
- What regional-level infrastructures are needed for nurturing and enabling bio based supply chains?
- How do these materials change the way we think about design, durability and construction practices?

We will test the use of biobased materials in developing prototypical design projects for low-rise high-density multiunit housing, also sometimes referred to as the <u>"missing middle"</u>.

New housing construction in New York is at an all-time low especially in low and medium density districts due to increasing construction costs and restrictive zoning rules that in many cases prohibit the kind of density of the existing building stock.

This studio will explore new approaches to this scale – moderately sized multi-unit housing testing forms and typologies directly informed by the materials and climates we build with.

- Who can live here? What innovative unit configurations, shared spaces and open spaces can we envision for these prototypes?
- How can our choice of biogenic material and other sustainability considerations drive design decisions?
- How can new housing types contribute to the existing fabric?



Biomaterials House at Dutch Design Week, 2021

SPECIFIC LEARNING OBJECTIVES

Studio portion:

- 1. To devise and develop a process for shaping the built environment through a multi-scalar understanding of design decisions within the context of larger systems of supply chains, housing construction and climate change. (NAAB PC.2)
- 2. To successfully **integrate material research**, **site analysis and housing research into a design process**, working at the scale of the site/building, the scale of the region as a material resource and the scale of exemplary construction details. (NAAB PC.2)
- 3. To demonstrate the ability to understand and synthesize a design project that considers **site conditions**, **user requirements and principles of accessible design in multi-unit housing**, while exploring **innovation in material** and its current limitations with respect to regulatory requirements. (NAAB SC.5)
- 4. To demonstrate the ability to **calculate and consider life cycle analysis** of building materials and their impact on design decisions. (NAAB SC.5)

Workshop portion:

5. To apply multi-scalar research methods for testing and evaluating innovative approaches to integrating regionally sourced materials in design, including historic research, geographic mapping and hands-on experimentation. (NAAB PC.5)

RESEARCH WORKSHOP



Samples of biogenic materials, Material Library ETH Zürich

In the research workshop we will explore landscapes, forests and farms in the American Northeast as sources for new bioregional construction methods and produce a collective body of knowledge on regionally grown and low-carbon materials, such as straw, hemp, willow, poplar, corn, reed or seaweed to support our design projects as well as our collective understanding about life cycles, embodied carbon and bioregional construction. Working individually or in pairs, the research workshop is concerned with understanding and visualizing these potential impacts and material flows. Each student will select one material to explore throughout the semester in these three parts, each with its associated deliverable (see more in the separate Research Workshop Brief)

1. Mapping material flows and supply chains (Week 1-6)

Each student will research and map the geographic area in which their material is grown/harvested and the ecosystems, stakeholders and conditions associated with growing and harvesting. In addition, students will visualize the life cycle of this material from its growing phase to its use in architecture to eventually its end-of-life stage.

2. Investigating material applications and properties (Week 5-9)

Overlapping with the first assignment, you will collect and document case studies of built examples, vernacular or indigenous construction details or other applications for your selected material; document the properties of your material including embodied carbon, and depending on your material begin experimenting with it.

3. Prototyping (Week 10-15)

In this third phase, we will work in teams to assemble 3-4 prototypes of wall assemblies at the scale of 1:1. To do so, we will develop detailed drawings that incorporate one or more of the materials studied and then construct a section of wall or roof together including structure, insulation and interior and exterior finishes.

DESIGN PROJECT

In the studio, students will work in teams/pairs through a series of interconnected exercises. Students will select their own site from two possible choices in Newburgh (one new construction, one adaptive reuse) and develop a prototypical building applying the studio's collective material research to the project. Each of the exercises below will be introduced with a 1-page brief outlining specific deliverables at each stage.



"Changing Our Footprint" exhibition by Henning Larsen

Constructing Site (Week 1-3)

Each team will select their own site following our site visit to Newburgh and will prepare a digital presentation **constructing knowledge** about the site and its context. This knowledge is intended to be shared studio-wide while at the same time be specific to each team's individual narrative and approach to the site and project.

Conceptual Design (Week 4-6)

Teams will develop 2-3 conceptual designs beginning with a site model and conceptual sketches that explore typologies of form, density, arranging units, circulation and cores. This exercise will be supported by case study research in which each student will be given a case study of similar scale and will be asked to create their own diagrammatic analysis of certain design elements informing the overall approach to medium scale housing.

Schematic Design (Week 7-9)

For the midterm presentation, teams should have developed one of these concepts into a schematic design, illustrate how they respond to the site, how the program of multi-unit housing is accommodated through exemplary floor plans, sections and massing and demonstrate preliminary ideas of how their material research is driving the form and design of the project.

In addition, phase 1 and 2 of the research workshop will be presented at midterm and prepared to be exhibited in conjunction with the November 2 Symposium (Format and location tbd).

Material Innovation (Week 10-11)

In the second half of the semester, teams will develop their designs further integrating their material research and illustrating how biogenic material is driving design decisions. Students will integrate life cycle analysis and consider embodied carbon calculations of their design.

At a $\frac{2}{3}$ review, we will engage in a studio-wide discussion to explore what changes to regulations might have to occur or what additional research and testing might be needed to facilitate the innovative use of new materials. (Note: other regulatory requirements such as zoning, ADA, fire code, etc. will be introduced and encouraged to adhere to throughout the semester).

Design Development (Week 12-15)

The final weeks of the semester will be used to synthesize research and schematic design into a comprehensive project, develop a convincing visual narrative and a series of drawings and models that illustrate your approach at multiple scales. Select detail drawings will reflect the material research, while illustrative diagrams and vignettes may be used to illustrate the overall concept.

SITE: Newburgh New York

Newburgh, a small city 60 miles north of New York City, once a thriving industrial center on the west side of the Hudson River, has seen a dramatic decline in economic activity over the past fifty years. A loss of manufacturing jobs as well as white flight to surrounding suburbs, compounded by urban renewal in the second half of the 20th century has left the City with an astonishing inventory of over 500 vacant properties by the early 2000s. A resurgent interest in the city among artists and creative professionals seeking affordable working and living space

as well as the presence of a large hispanic community, have created a vibrant atmosphere for new development,

adaptive reuse and a desire to fill the many scars in the city fabric.



Aerial of Newburgh

The studio will go on a site visit on 09/16 to explore several site opportunities concurrent with the first assignment "constructing site". Students will select a site driven by their own research agenda and will develop a project mindful of existing zoning regulations and context.

SCHEDULE

		Research Workshop	Studio
W1			
Th	8.29		Convocation @ 2:00pm, Aaron Davis Hall
			Grad Studio Lottery @ 3:00pm, rm. 107 (Spitzer)
			Studio: First meeting (end of day)
W2			
Mon	9.02	College Closed (Labor Day), no classes	
Th	9.05		2-3pm: Hour SSA/JEDI Climate Survey (in studio)
			Studio: Constructing Site
W3			
Mon	9.09	Workshop: Intro material research	Studio: Constructing Site
Th	9.12		Studio: Constructing Site
			Sciame Lecture: Lawrence Vale
W4			
Mon	9.16	All day field trip to Newburgh & Catskill	
Th	9.19		Studio: constructing site pin-up
			Rudin Lecture: Alan Hantman
W5			
Mon	9.23	Workshop: desk crits	Studio: desk crits
Th	9.26		Studio: housing Case study pin-up
			Sciame Lecture: Maria Carrizosa
W6			
Mon	9.3	Workshop: Pin-up Mapping & intro material applications	Studio: Desk Crits
Th	10.03		No Classes
W7			
Mon	10/07	Workshop: desk crits	Studio: Pin-up conceptual design
Th	10/10		Studio: Desk Crits
			Sciame Lecture: M. Schwarting & F. Campani

W8				
Mon	10.14	College Closed (Columbus/Indigenous People	s' Day), no classes	
Tu	10.15	Workshop: Embodied Carbon	Studio: Desk Crits	
Th	10.17		Studio: Desk Crits	
			Sciame Lecture: Anna & Tania Pashynska	
W9				
Mon	10.21	Workshop: pin-up material applications	Studio: Desk Crits	
Th	10.24		Studio - Midterm Reviews	
			Sciame Lecture: Nora Akawi	
W10				
Mon	10.28	Urban Thinker Campus event at UN (10-1pm)	Studio: Desk Crits (focus on material application)	
Th	10.31		Mid-semester assessments	
Sat	11.02	Urban Thinker Campus: Symposium: Students	s attend and exhibit research (10:00-1pm)	
W11				
Mon	11.04	Workshop: Innovation vs Regulations	Studio: pin-up: Innovation vs Regulations	
Th	11.07		Studio: Desk Crits	
			Sciame Lecture: Sabrine Malebranche	
W12				
Mon	11.11	Workshop: prototyping	Grad Sharing Session	
			Studio: Desk Crits	
Th	11.14		Studio: Desk Crits	
W13				
Mon	11.18	Workshop: prototyping	Studio: Desk Crits	
Th	11.21		Studio: Desk Crits	
W14				
Mon	11.25	Workshop: prototyping	Studio: Pin-up	
Th	11.28		College Closed (Thanksgiving), no classes	
W15				
Mon	12.02	Workshop: prototyping	Studio: Pin-up	
Th	12.05		Studio: Desk Crits	

FINAL REVIEWS, Dec 9-13

Mon 9 Dec	Tues 10 Dec	Wed 11 Dec	Th 12 Dec	Fri 13 Dec
Foundation	Foundation	Grad Studios	Grad Studios	Grad Studios
King	Kim	Salcedo	Kirsimagi	Haferd
Kuehl		Aydogan	Ebo	Zhang

END OF SEMESTER

Mon/Tu 12.16 + 17		Clean-up Days (all materials, projects, and any other items must be removed from studio)
Tu	12.17	End of Semester Assessment (faculty only)
Tu	12.17	Student Portfolios due for: SSA/CCNY Archive, etc. as directed by instructor
Fr	12.27	Final Grade Submission Deadline

BIBLIOGRAPHY

on Housing

Heckmann, Oliver, editor.; Schneider, Friederike, 1966- editor.; Zapel, Eric, editor. Floor plan manual housing, Basel: Birkhäuser, 2018

https://cuny-cc.primo.exlibrisgroup.com/permalink/01CUNY_CC/sed97m/alma9994315671606138 Jack Hanly, The Future of Social Housing: 7 Low-Rise, High-Density Developments in Architizer, https://architizer.com/blog/inspiration/collections/low-rise-high-density/

Kubey, Karen, https://urbanomnibus.net/2012/07/low-rise-high-density-housing-a-contemporary-view-of-marcus-qarvey-park-village/

Sam Naylor, Dan D'Oca, Chris Herbert, <u>The State of Housing Design</u> Joint Center for Housing Studies at Harvard University, 2023

Parolek, Daniel G., Missing middle housing: thinking big and building small to respond to today's housing crisis, Washington, District of Columbia; Covelo: Island Press, 2020

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on Biogenic Materials

Andersen, Paul, Jane Kelley and Paul Preissner. American Framing: The Same Something for Everyone. Zürich: Park Books, 2023.(on library order)

King, Bruce, Magwood, Chris. Build Beyond Zero: New Ideas for carbon-smart architecture. Island Press, 2022, http://ccny-

proxy1.libr.ccny.cuny.edu/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=e000xna&AN=31974 58&site=ehost-live&ebv=EB&ppid=pp 105

King, Bruce. The New Carbon Architecture: Building to Cool the Climate. Gabriola Island, BC, Canada: New Society Publishers, 2017.

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Matti Kuittinen, Alan Organschi, Andrew Ruff. CARBON: A Field Manual for Building Researchers, Wiley, 2022,

Lewis, Paul, Marc Tsurumaki and David J Lewis. Manual of Biogenic House Sections. Novato: ORO Editions, 2022.Reserves 2 hour loan; NA2775 .L48 2022

Material Cultures, Material Reform: Building for a Post-Carbon Future, Mack Books, 2022

Nabokov, Peter, Easton, Robert, Native American Architecture, New York, Oxford University Press, 1989 https://cuny-cc.primo.exlibrisgroup.com/permalink/01CUNY CC/sed97m/alma990024578430106138

Thallon, Rob. Graphic Guide to Frame Construction: Details for Builders and Designers. Completely rev. and Updated. Newtown, CT: Taunton Press, 2000. Stacks;TH1101 .T48 2000

Wachsmann, Konrad, Michael Grüning, and Christian Sumi. Building the Wooden House: Technique and Design. Basel: Birkhäuser, 1995. Stacks;TH4818.W6 W3313 1995

Wikstrom, Lindsey, Designing the Forest and other Mass Timber Futures. New York and London: Routledge, 2023.(on library order)

Other Resources

Material databases:

2050 Materials https://2050-materials.com/ – A database for finding and comparing materials and products

Material District https://materialdistrict.com/ - Platform for innovative materials

Parsons Healthy Materials Lab, Material library: https://healthymaterialslab.org/material-collections

Plants category: https://healthymaterialslab.org/material-collections/plant-materials

UT Austin Material Lab https://materials.soa.utexas.edu/search/

Reports and Talks

Yale Center for Ecosystems in Architecture (Yale CEA): Building Materials & The Climate: https://www.buildingmaterialsandclimate.com/, 2023

Architectural League discussion series "From Field to Form":

https://archleague.org/events/?fwp alny events=from-field-to-form (Videos of past events available)

Organizations

Bauhaus Earth - https://www.bauhauserde.org/

Building for the Future is a series of short texts by Bauhaus Earth introducing the concept of a regenerative built environment as an alternative approach to how we currently design and build our cities. https://www.bauhauserde.org/initiatives/building-for-the-future-knowledge-products

Northeast Biobased Material Collective

https://massdesigngroup.org/work/research/northeast-bio-based-materials-collective

GRADING/ATTENDANCE POLICIES AND STUDIO CULTURE

Learning Outcomes as prescribed by NAAB:

(see specific learning outcomes for this studio on page 5)

- To apply architecture research methods for testing and evaluating innovative approaches to design. (NAAB PC.5)
- To devise and develop a process for shaping the built environment through design. (NAAB PC.2)
- To successfully identify and integrate multiple factors into a design process, working in at least two scales. (NAAB PC.2)
- To demonstrate the ability to understand and synthesize user requirements, regulatory requirements, site conditions, and accessible design into a design project. (NAAB SC.5)
- To demonstrate the ability to consider the measurable environmental impacts of design decisions. (NAAB SC.5)

Course Expectations:

- That students will develop a high level of independent thought and rigor and a willingness to go beyond both basic project requirements and their own perceived limits and abilities.
- That students will successfully complete all project requirements. No make-up or postponed project submissions will be accepted except in the case of medical emergencies or other extraordinary circumstances. Excused absences and project delays must be officially cleared by professor in advance to be considered valid.

Community Agreement:

- As noted on the schedule, the professor will make time for an *Hour SSA* session for a supportive open discussion among students.
- Studio members will work *together* to create a community agreement for interacting together over the semester. Definition: "A consensus on what every person in our group needs from each other and commits to each other in order to feel safe, supported, open, productive and trusting... so that we can do our best work." https://www.nationaleguityproject.org/tools/developing-community-agreements
- Hour SSA will be repeated at the middle of the semester.

Methods of Assessment:

- Students will receive separate grades for the research workshop and studio project.
- Each student's design projects will be assessed individually, including work completed collaboratively (in pairs or teams).
- Assessment in the form of verbal comments and responses will be shared during periodic pin-ups and at scheduled reviews, to which external guests ("reviewers") may be invited.
- A brief written assessment –using a common rubric –will be provided after the midterm
- At the end of the semester, a final assessment will be provided after submission of a portfolio of the semester's work. This assessment may take the form of a short meeting, a voice memo or written comments; it is intended to be constructively focused on each student's general areas of strength, areas that could be improved and personal goals.

Grading Assessment:

- **Conceptual thinking:** Ability to conceptualize in spatial terms, use of critical thinking skills and analytical rigor to develop a coherent research and design project
- **Effort:** Work demonstrates sufficient time spent and attention to detail. Work shows evidence of working in an iterative manner, from concept to resolution and back again.
- **Skill and quality of execution:** Quality and clarity of research documentation, drawings and models created. Drawings are consistent and legible. The qualities of the design are communicated through architectural methods and means (drawings, models, sketches, diagrams). Research documentation is complete, legible and well-organized.
- **Improvement:** Degree of growth demonstrated in various areas of the architectural studio design process over the course of the semester.
- Participation: Engaging in studio discussions, reviews of readings, and presentations.
- Attendance: Consistent level of preparation and on-time presence for each studio class and scheduled
 evening lectures.
- **Portfolio**: Completion of final portfolio or collection of studio work as directed by instructor and attendance at all scheduled portfolio related events.

Distribution of Grading Assessment for Studio Grade

Constructing Site	10%
Conceptual Design / Housing Research	10%
Schematic Design / Midterm	25%
Integration of Material Innovation	10%
Final Design & Presentation	30%
Participation & Attendance	10%
Final Portfolio - completion & submission	5%

Distribution of Grading Assessment for Research Workshop Grade

Geographic Mapping supply chain research	40%
Case study and architectural application research	20%
Prototype and hands on experimentation	30%
Participation & Attendance	10%

- A (+/-) Work meets all requirements and exceeds them. Presentations are virtually flawless, complete, and finely detailed. Work exhibits professional, "museum quality" level of craft. Student has developed an individual design process that shows a high level of independent thought and rigor. Work shows evidence of intense ambition and effort to go beyond expectations, and beyond the student's own perceived limits of their abilities.
- **B** (+/-) Work meets all requirements. Presentations are complete and finely detailed. Work exhibits professional level of craft. Student has developed an individual design process that shows a high level of independent thought and rigor.
- **C (+)** Work meets minimum requirements. Deadlines are missed. While presentations may be somewhat complete, student has struggled to develop an individual design process and/or is lacking in craft or design resolution.
- **F** Work is below minimum requirements. Student does not develop adequate design process, and/or does not finish work.
- INC Grades of "incomplete" are not given under any circumstances unless there is evidence of a medical or personal emergency. In such cases, instructor and student develop a contract to complete work by a specified date, as per CCNY policy. Classes and/or work missed due to illness must be explained with a physician's note.

Notes:

C is the lowest passing grade for M. Arch I and M.S. Arch students. No C- or D grades may be given to graduate students.

Working in teams does not guarantee the same grade for each team member; grades are based on a range of criteria for each individual student.

For more information on grading guidelines and other CCNY policies and procedures, consult the current CCNY academic bulletins: https://www.ccny.cuny.edu/registrar/bulletins

Office Hours:

Each studio/unit faculty member schedules regular office hours over the semester, as posted at the top of the syllabus. If a student needs to speak in private with a studio/unit critic, they should ask or email in advance to request a specific meeting time. Students may seek office hour appointments to discuss any matters of concern including personal, private matters and general inquiries about course related work, grading, assessment and content.

Probation & Dismissal: for program specific information related to grades, academic standing, probation and dismissal, please see your program academic advisor:

Graduate: Hannah Borgeson hborgeson@ccny.cuny.edu

Studio Culture:

Working collaboratively and respectfully on studio assignments, with and alongside others, is an expectation in studio. Studio culture is an important part of an architectural education, and it extends to expectations for Faculty and the School's Administration as well. Please see the Spitzer School of Architecture Learning, Teaching, and School Culture Guidelines, which can be accessed on the SSA website here: https://ssa.ccny.cuny.edu/about/policies/.

Absence & Lateness:

Arriving more than ten minutes late to class will constitute an absence. Two unexcused absences will result in a whole letter grade deduction from a final grade; more than four will result in a failing grade. It is expected that all students will participate in all scheduled working, midterm and final reviews and contribute constructively to the discussions.

Absences due to Religious Observances:

Students who will miss any class sessions, exams, presentations, trips, or the like due to a religious observance should notify the instructor at the beginning of the semester so that appropriate adjustments for observance needs can be implemented. This could include an opportunity to make up any examination, study, or work requirement that is missed because of an absence due to a religious observance on any particular day or days.

Readings & Journals:

Students are expected to keep a journal or sketchbook throughout the duration of studio to document their thought process & take notes of any texts, books, terms or references that are mentioned by either the studio critic or fellow classmates and to selectively follow up on these and any other assigned readings before the next class.

Academic Integrity:

As a student you are expected to conduct yourself in a manner that reflects the ethical ideas of the profession of architecture. Any act of academic dishonesty not only raises questions about an individual's fitness to practice architecture, but also demeans the academic environment in which it occurred. Giving or receiving aid in examinations, and plagiarism are a violation of an assumed trust between the school and the student.

Plagiarism, i.e. the presentation as one's own work of words, drawings, ideas and opinions of someone else, is as serious an instance of academic dishonesty in this context as cheating on examinations. The submission of any piece of work (written, drawn, built, or photocopied) is assumed by the school to guarantee that the thoughts and expressions in it are literally the student's own, executed by the student. All assignments must be the student's original work. Any copying, even short excerpts, from another book, article, or Internet source, published or unpublished, without proper attribution will result in automatic failure of the entire course.

The CCNY Academic Integrity Policy: https://www.ccny.cuny.edu/about/integrity

For citations, the Chicago Manual of Style is recommended: http://www.chicagomanualofstyle.org/tools-citationguide.html

AccessAbility Center (Student Disability Services):

The AccessAbility center (AAC) facilitates equal access and coordinates reasonable accommodations, academic adjustments, and support services for City College students with disabilities while preserving the integrity of academic standards. Students who have self-identified with AAC to receive accommodations should inform the instructor at the beginning of the semester. (North Academic Center 1/218; 212-650-5913 or 212-650-6910 for TTY/TTD). For further information, go to http://www.ccny.cuny.edu/accessability/ or email disabilityservices@ccny.cuny.edu

Health And Wellness Support:

City College's Office of Health and Wellness Services offers free and confidential counseling. Contact: Health and Wellness Services, Marshak Science Building, room J-15: counseling@ccny.cuny.edu.

Gender Based Violence Resources

City College has resources to support you if you have experienced sexual violence, intimate partner/domestic violence, gender-based discrimination, harassment or stalking. For confidential support, you can contact the Student Psychological Counselor: Confidential Advocate at (212) 650-8905 or the Gender Resources Program at (212) 650-8222. If you would like to report sexual misconduct, you can contact the Chief Diversity Officer and Title

IX Coordinator, Diana Cuozzo, at 212-650-7330 or dcuozzo@ccny.cuny.edu. If there is an emergency on campus, you can call Public Safety at 212-650-777 and off campus call 911. Https://www.ccny.cuny.edu/affirmativeaction

Library:

The school's library is a shared resource that is necessary supplement to all research and design work. Please direct questions to the library staff or the Architecture Librarian Nilda Sanchez-Rodriguez: nsanchez@ccny.cuny.edu

NAAB (National Architectural Accrediting Board)

The National Architectural Accrediting Board (NAAB) is the sole agency authorized to accredit US professional degree programs in architecture. Since most state registration boards in the United States require any applicant for licensure to have graduated from a NAAB-accredited program, obtaining such a degree is an essential aspect of preparing for the professional practice of architecture. While graduation from a NAAB-accredited program does not assure registration, the accrediting process is intended to verify that each accredited program substantially meets those standards that, as a whole, comprise an appropriate education for an architect.

More specifically, the NAAB requires an accredited program to produce graduates who: are competent in a range of intellectual, spatial, technical, and interpersonal skills; understand the historical, socio-cultural, and environmental context of architecture; are able to solve architectural design problems, including the integration of technical systems and health and safety requirements; and comprehend architects' roles and responsibilities in society.

Students should consult the NAAB website <u>www.naab.org</u> for additional information regarding student performance criteria and all other conditions for accreditation.

NAAB CRITERIA ADDRESSED (2020 Conditions for Accreditation)

- **PC.2 Design**—how the program instills in students the role of the design process in shaping the built environment and conveys the methods by which design processes integrate multiple factors, in different settings and scales of development, from buildings to cities.
- **PC.5 Research & Innovation**—How the program prepares students to engage and participate in architectural research to test and evaluate innovations in the field.
- **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.