

Type of Course: Architecture Studio ARCH85101 / 51000 / 92102  
Class Meetings: M/TH: 2:00PM – 5:50PM  
Instructor: Nandini Bagchee  
Location: Room TBD  
Semester/Year: Spring 2019

---

## JACKSON, MISSISSIPPI.

As the South goes, so goes the nation.

- W.E.B. DuBois



Fig 1. Capitol building with Capitol Rally plaque in foreground, Jackson Mississippi

Jackson, the capital of Mississippi is one of the poorest metropolitan centers in the country that is struggling to overcome decades of economic divestment, deindustrialization, suburban flight, a declining tax base, chronic un-employment, poorly performing schools, and an antiquated and decaying infrastructure. The streets of downtown Jackson are marked by plaques that celebrate the historic role the citizens of this city played in the civil rights movement but the struggle to achieve social equity and racial justice is still ongoing. **Cooperation Jackson** is part of a larger social movement built upon a legacy of African American Activism in the south to create a solidarity economy in Jackson Mississippi.

The stated goal of this effort is “to build a base of autonomous power in Mississippi concentrated in Jackson and the eastern Black Belt portions of the state to serve as a catalyst for the attainment of Black self-determination and the democratic transformation of the economy.”

Cooperation Jackson is working upon a strategy of coordinated social action to produce an economic democracy and a solidarity economy via the development of cooperative and worker owned enterprises. These worker-owned co-ops will form the basis of a self-sufficient economy within the **Jackson Coop Eco City** where land is owned by a community land trust and multiple co-ops run housing, construction, waste management, food production and landscaping enterprises.

To this end, they have already acquired 42 parcels of land all located within west Jackson and begun by setting up a community center, urban farming and commercial facilities. This acquisition of property references the past agenda to “Free the Land by any means necessary” (Malcolm X) but with a definitive awareness of the present threat of gentrification that is displacing poor communities of color across cities around the country. Cooperation Jackson is at the beginning stages of planning residential development that will provide housing to the community but also produce housing through a worker co-op.

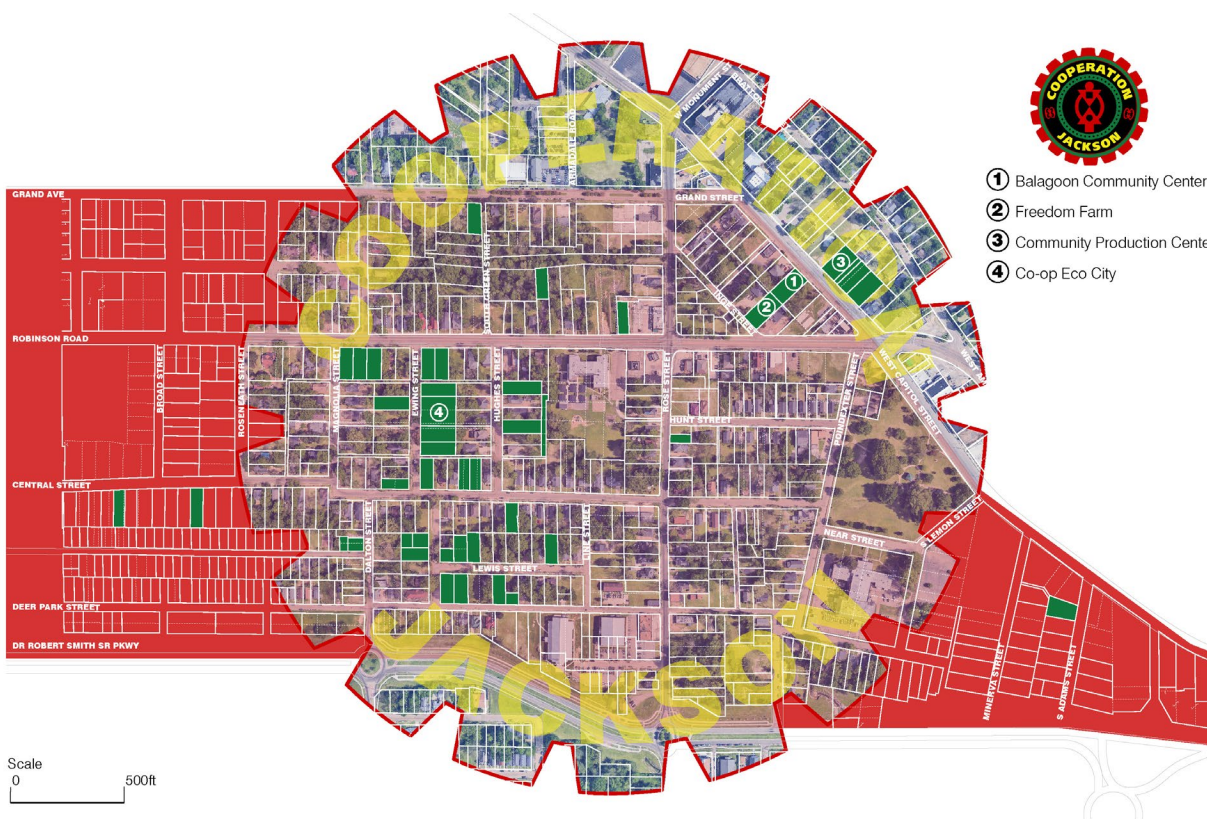


Fig 2. Map of West Jackson with land parcels belonging to Cooperation Jackson

The **Center for Community Production** is a cooperative within the organization that will become a platform for sustainable manufacturing and fabrication. This initiative is anchored by a Fabrication Laboratory which will serve as a “training center, a multi-stakeholder cooperative, a coding and digital programming innovation hub, a maker space and the city’s first hub of community production”. Beginning this year, the center for community production will mobilize to design-build housing in collaboration with our advanced design studio at city college.



## ADVANCED DESIGN STUDIO: JACKSON ECO DWELLING

“You never change things by fighting the existing reality.  
To change something, build a new model that makes the existing model obsolete.”

- Buckminster Fuller

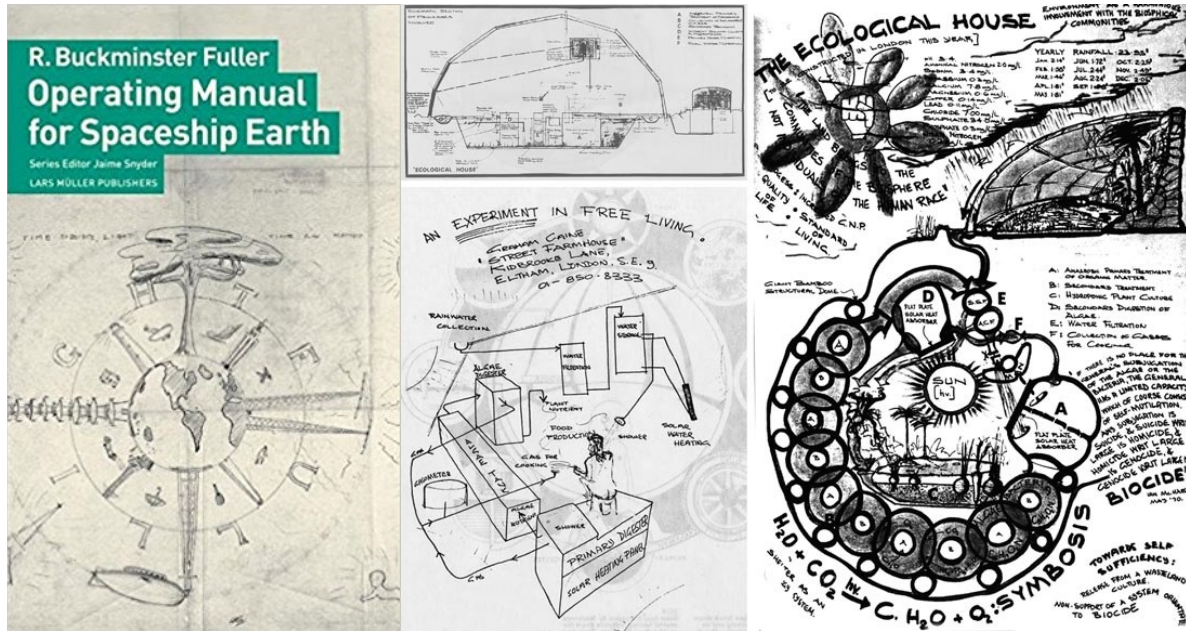


Fig 3. Precedent for Architects thinking about the “Eco” House

- R. Buckminster Fuller, “Operating Manual for Spaceship Earth”
- Graham Caine, Sketches for the Eco-House, London, 1972-75.

There is a long history of architects designing for and with intentional communities and experimenting with ecologically sustainable dwellings. We are still in quest of that model as Bucky suggests that makes the existing model obsolete. This studio aims to challenge the existing model of private property through a design process that engages with questions of cooperative living using ecological principles. In doing so, we will examine the concept of a dwelling that balances the private and public life of individuals within a community that aspires to build and live democratically in an ecologically sustainable manner.

The students in the Advanced Design Studio will collaborate with **Cooperation Jackson** to create new proposals for the construction of single and collective dwellings for the **Co-op Eco City Project** in Jackson, Mississippi. In the execution of this project, the students will work holistically within the development model envisioned by Cooperation Jackson to creatively explore the specific deployment of material, means and methods to fabricate housing within their digital fabrication facility. The goal of the studio is to design a well worked out house (single/ small scale/ collective) and develop the blue print for a full-scale mockup element for this house that will ultimately be produced in a workshop as part of a pilot project by the **Center for Community Production** in Jackson Mississippi.

## PROJECT OUTLINE:

### PHASE 1: Co-op City Research\_4 Weeks (Team work)

- A. The students will focus on a series of contiguous properties along Ewing street to develop a combined sequence of flexible housing (one and two family) that accommodates a multigenerational community with varying needs and incorporates shared farming and communal gatherings within the block.

This first part of the studio will allow the students to familiarize themselves with the site and expectations of the basic program for the communal housing.

- B. Students will analyze the following general data:

- Site and Climate
- Historic and Material Culture
- Sustainable Systems for housing development (Food, Waste, Water and Energy)
- Zoning and Code

#### Deliverables:

Drawings and diagrams of the data analysis.

Group proposal for eco city masterplan that incorporates farming, recycling and waste into community housing.

### PHASE 2: Co-op City \_Eco House\_4 Weeks (Individual)

Students will create a proposal for a single/duplex Eco house that takes into consideration the assembly and production as well as the broader ecological project.

Develop the housing proposal further keeping the following criteria in mind-

1. Building Materials – Light structures, Modular, Recyclable.
2. Heating, Ventilation, Electrical, Air Conditioning- Renewable energy sources, Use of photovoltaics, Integrated air conditioning, Off the grid (as much as possible), Low energy lighting systems.
3. Waste and water- Composting toilets, Purification of Grey water, Rain water harvesting(?)
4. Landscape- Integrating the shared cultivation/ open ground into the planning for the house.

#### Deliverables:

Drawings and diagrams of housing.

Sketch models

### PHASE 3: Co-op City \_ Assembly and Fabrication\_6 Weeks (Individual)

The long-term goal of the Center for Community Production is to build housing using the tools and technology that they have recently acquired for their Fabrication Laboratory in Jackson Mississippi. The designs produced this semester will become a blueprint for the development of a "model house" to be produced in 2020. In anticipation, the final four weeks of the studio will focus on the following:

- A. Creating a working model of the house that considers the means and methods of construction of the Eco House using the technology readily available at the fabrication facility in Jackson.

- B. Selecting an element of the house to build a full-scale mock up. Our collaborators from Cooperation Jackson will select two of these “final” mock-ups and build out at their fabrication lab in West Jackson Mississippi.

Deliverables:

Drawings and diagrams of housing assembly.  
 Final model of House and mock up.  
 Blueprint for fabrication of full-scale mock up.

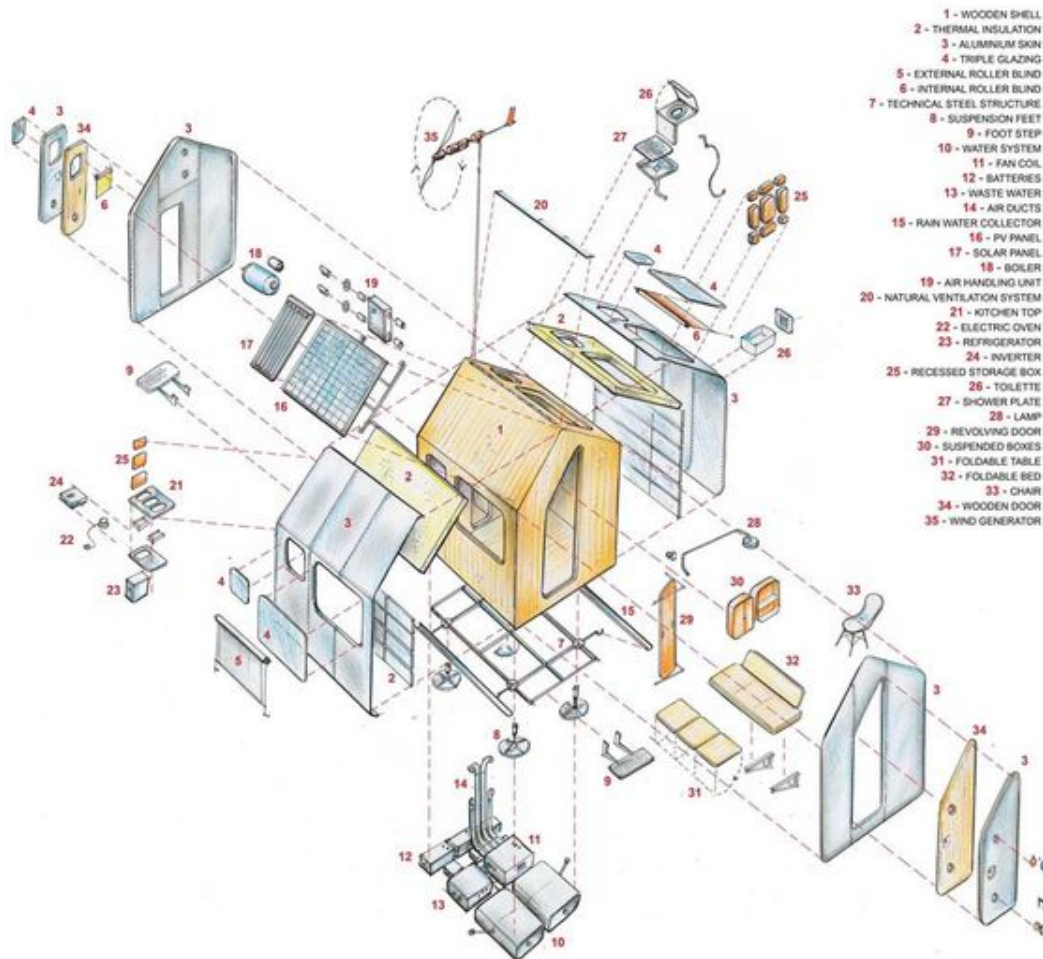


Fig 4. Renzo Piano, Diogene House drawing, 2013.

**CONSOLIDATION: Co-operative City \_ Eco House Package\_2 Weeks**

The last two weeks of the semester will be spent producing a catalog that documents a complete vision of the project and integrates all the phases of the work- from site planning to dwelling fabrication.

**BIBLIOGRAPHY AND REFERENCE:****Cooperation Jackson:**

Kali Akuno & Ajamu Nangwaya, *Jackson Rising: The Struggle for Economic Democracy and Black Self Determination in Jackson Mississippi*, Cooperation Jackson Daraja Press, 2017.

<https://grist.org/cities/a-green-utopia-deep-in-mississippi-this-guy-has-a-game-plan/>

<https://jacksonrising.wordpress.com/local/background-context/>

<https://www.scribd.com/doc/218031046/The-Jackson-Kush-Plan>

**Public interest Design:**

Nishat Awan, Tatjana Schneider, and Jeremy Till. *Spatial Agency: Other Ways of Doing Architecture*. New York: Routledge, 2011.

Also accessible at <http://www.spatialagency.net/>

<http://field-journal.org/portfolio-items/field-3-agency-and-the-praxis-of-activism/>

Making All the Things: The Theaster Gates Approach to Improving Space

<http://nextcity.org/daily/entry/making-all-the-things-the-theaster-gates-approach-to-improving-space>

Georgeen Theodore, *Advocacy? Three Modes of Operation for the Activist Architect*, Field Journal, 2013.

**Eco- House and Communitarian Estates:**

Lydia Kallipoliti, "From Shit to Food: Graham Caine's Eco-House in South London, 1972–1975", *Buildings & Landscapes: Journal of the Vernacular Architecture Forum*, University of Minnesota Press Vol. 19, No. 1 Spring 2012), pp. 87-106.

Lorena Farras Perez, *Eco design outside: green outside the house*, Richmond Hill, Ont, 2012 (TH4860.P47 2012).

Peder Anker, *From Bauhaus to Ecohouse: A History of Ecological Design*, (Baton Rouge: Louisiana State University Press, 2010).

Buckminster Fuller, *Operating Manual for Spaceship Earth*, any edition.

Murray Bookchin, *Post Scarcity Anarchism*, Black Rose Publishing, Quebec, Canada, 1986.

Chelsea Schelly, *Dwelling in Resistance: Living with Alternative Technologies in America*, Rutgers University Press, New Brunswick, NJ. 2017. (CCNY Online).

Hugentobler, M., Hofer, A., & Simmendinger, P. (Eds)., *More Than Housing: Cooperative Planning - A Case Study in Zurich, Basel, Switzerland*: Birkhäuser. (2016). (CCNY Online).

Helen Jarvis, "Saving space, sharing time: integrated infrastructures of daily life in cohousing", *Environment and Planning A*, volume 43, 2011, 560-577.

**SCHEDULE:** Note: the schedule below is subject to change through the duration of the semester.

WEEK 1	01.28.2019	Phase 1 Introduction
	01.31.2019	Phase 1A Research_ Teleconference with Coop Jackson
WEEK 2	02.04.2019	Phase 1A Research_ Work in Studio
	02.07.2019	Phase 1A Research_ Pin up
WEEK 3	02.11.2019	Phase 1B Research_ Work in Studio
	02.14.2019	Phase 1B Research_ Teleconference with Coop Jackson
		<b>6:30pm. Lecture: Nandini Bagchee</b>
WEEK 4	02.18.2019	No Class- Presidents Day
	02.21.2019	Phase 1 Review Phase 1
WEEK 5	02.25.2019	Phase 2 Eco House_ Work in Studio
	02.28.2019	Phase 2 Eco House_ Teleconference with Coop Jackson
		<b>6:30pm. Lecture: Olalekan Jeyifous</b>
WEEK 6	03.04.2019	Phase 2 Eco House_ Work in Studio
	03.07.2019	Phase 2 Eco House_ Work in Studio
		<b>6:30pm. Lecture: Walter Hood</b>
WEEK 7	03.11.2019	Phase 2 Eco House_ Teleconference with Coop Jackson
	03.14.2019	Phase 2 Eco House_ Work in Studio
		<b>6:30pm. Lecture: Byron Merritt</b>
WEEK 8	03.18.2019	Phase 2 Eco House_ Work in Studio
	03.21.2019	Phase 2 Review Phase 2
		<b>6:30pm. Lecture: Ferda Kolatan</b>
WEEK 9	03.25.2019	Phase 3A Assembly_ Work in Studio
	03.28.2019	Phase 3A Assembly_ Teleconference with Coop Jackson
		<b>6:30pm. Lecture: Jennifer Newsom</b>
WEEK 10	04.01.2019	Phase 3A Assembly_ Pin up
	04.04.2019	Phase 3B Fabrication_ Teleconference with Coop Jackson
		<b>6:30pm. Lecture: Monica Bertolino</b>
WEEK 11	04.08.2019	Phase 3B Fabrication_ Work in Studio
	04.11.2019	Phase 3B Fabrication_ Work in Studio
		<b>6:30pm. Lecture: Brian Goldstein</b>
WEEK 12	04.15.2019	Phase 3B Fabrication_ Work in Studio
	04.18.2019	Phase 3 Review Phase 3_ Teleconference with Coop Jackson
WEEK 13	04.22.2019- 04.25.2019	Spring Recess
WEEK 14	04.29.2019	Consolidation_ Work in Studio
	05.02.2019	Consolidation_ Work in Studio
WEEK 15	05.06.2019	Consolidation_ Work in Studio
	TBD	FINAL REVIEW



## GRADING/ATTENDANCE POLICIES AND STUDIO CULTURE

**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 in order to be considered valid.

**Methods of Assessment:**

- Attendance and participation in class discussions: 20%
- Project development in response to semester schedule: 50%
- Project presentation, completion and resolution: 30%

*Note: The Research component of the studio will be weighed more heavily in assessment of graduate student work and class performance.*

**Key areas of Grading Assessment:**

- **Studio performance & work habits:** Ability to respond to studio criticism & discourse in a consistent & clear manner throughout the course of the semester as demonstrated in the evolution and development of design work.
- **Clarity of representation & mastery of media:** Ability to utilize both digital and manual drawing and model-making techniques to precisely and creatively represent architectural ideas.
- **Pre-design:** Ability to prepare a comprehensive program for an architectural project that includes such tasks as: an assessment of client and user needs; an inventory of spaces and their requirements; an analysis of site conditions (including existing buildings); a review of the relevant building codes and standards, including relevant sustainability requirements, and an assessment of their implications for the project; and a definition of site selection and design assessment criteria.
- **Research:** Understanding of the theoretical and applied research methodologies and practices used during the design process.
- **Integrated evaluations and decision-making design process:** Ability to demonstrate the skills associated with making integrated decisions across multiple systems and variables in the completion of a design project. This demonstration includes problem identification, setting evaluative criteria, analyzing solutions, and predicting the effectiveness of implementation.
- **Attendance:** Consistent level of preparation and on-time presence for each studio class and scheduled evening lectures.
- **Portfolio:** Completion of portfolio as described below and attendance at all scheduled portfolio related events.

**Portfolio**

- All M.Arch I third year students and all M.Arch II students are required to submit a portfolio on February 1st, 2019. Third year students and M Arch II students may submit either a hard copy portfolio or email a link to a digital portfolio to [hborgeson@ccny.cuny.edu](mailto:hborgeson@ccny.cuny.edu). Digital submissions must be a link, not a file attachment.
- All B.Arch 4<sup>th</sup> year students are required to submit a hard copy portfolio on February 15<sup>th</sup>, 2019. Submit to the Architecture Program office (there will be a bin for your use).

**Grading Criteria:**

**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 struggle to go beyond expectations, and beyond the student's own perceived limits of their abilities.





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.

**Noise Policy:**

The studio environment should be a quiet and respectful place where all students can work and think in peace. At no time may students play music out loud in studio, even at a low volume. If you desire to listen to music, either during class hours or after hours, headphones are a requirement. Conversations must also be kept to a reasonable volume to respect classmates and those students in adjacent studios.

**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 a serious instance of academic dishonesty in the 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.ccnycunyu.edu/about/integrity>

For citations, the Chicago Manual of Style is recommended:

[http://www.chicagomanualofstyle.org/tools\\_citationguide.html](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). <https://www.ccnycunyu.edu/accessability>

**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:

[nsanchez@ccny.cuny.edu](mailto: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.

The following student performance criteria from the 2014 NAAB Conditions are addressed in this course:

**Realm B: Building Practices, Technical Skills, And Knowledge.** Graduates from NAAB-accredited programs must be able to comprehend the technical aspects of design, systems, and materials and be able to apply that comprehension to architectural solutions. In addition, the impact of such decisions on the environment must be well considered.

**B.1 Pre-Design:** ability to prepare a comprehensive program for an architectural project that includes an assessment of client and user needs; an inventory of spaces and their requirements; an analysis of site conditions (including existing buildings); a review of the relevant building codes and standards, including relevant sustainability requirements, and an assessment of their implications for the project; and a definition of site selection and design assessment criteria.

**Realm C: Integrated Architectural Solutions.** Graduates from NAAB-accredited programs must be able to demonstrate that they have the ability to synthesize a wide range of variables into an integrated design solution.

**C.1 Research:** understanding of the theoretical and applied research methodologies and practices used during the design process.

**C.2 Integrated Evaluations and Decision-Making Design Process:** ability to demonstrate the skills associated with making integrated decisions across multiple systems and variables in the completion of a design project. This demonstration includes problem identification, setting evaluative criteria, analyzing solutions, and predicting the effectiveness of implementation.

*Students should consult the NAAB website [www.naab.org](http://www.naab.org) for additional information regarding student performance criteria and all other conditions for accreditation.*

#### CONTACT INFORMATION:

Nandini Bagchee [nbagchee@ccny.cuny.edu](mailto:nbagchee@ccny.cuny.edu)