ARCH504G Architecture Studio IV
ARCHITECTURE OF TIME: SUBJECT TO CHANGE

> *Prerequisite: ARCH 503G. Design of buildings and integration of systems, physical and conceptual. Design methodology generates new information on buildings as coherent assemblies of systems. Also covers analysis and synthesis of form and introduction to applications of computer-assisted design (CAD). Preparation of design portfolio will complete core studio sequence.* (NJIT Catalog 2023-2024)

Instructor
Branko Kolarevic | branko@njit.edu

Time & Location
Mon/Thu 12:00-5:50 pm, TBD
Office hours are by appointment only.

Prerequisites
Prerequisites: ARCH 503G.

Description
The aim of this studio is to explore what change means in architecture and how it is manifested: buildings weather, programs change, envelopes adapt, interiors are reconfigured, systems replaced. We are interested in the kinds of changes that buildings could and should undergo and the scale and speed at which they would occur. We want to examine which changes are necessary, useful, desirable, possible…

The principal motivation behind the studio is that change in architecture is far from being adequately addressed or explored theoretically, experimentally, or phenomenologically. But that is not the only driver of our interest in what, why, when and how things change in buildings. Time is implicated in any notion of change in architecture; as a design dimension, time is often neglected and is insufficiently explored either in design studio projects in schools or in real-world projects in firms. Our goal is to explore how to "make space for time" (David Leatherbarrow).

Learning Outcomes
This studio course is designed to give students an exposure to and an understanding of time as an essential design dimension. The primary objective is to sharpen awareness about change as an essential and unavoidable condition of building's existence over time and how to design for it. Students who complete this design studio will have a basic knowledge of various ways in which changes are manifested in buildings and how various building technologies – existing and emerging – can facilitate that process.

NAAB Student Performance Criteria
The National Architectural Accrediting Board (NAAB) accredits NJIT's architecture program. The NAAB has Program and Student Criteria that must be covered by any architectural curriculum to attain their approval. This course satisfies the following criteria in full or partially:

- **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.3 Ecological Knowedge and Responsibility** – How the program instills in students a holistic understanding of the dynamic between built and natural environments, enabling future architects to mitigate climate change responsibly by leveraging ecological, advanced building performance, adaptation, and resilience principles in their work and advocacy activities.
- **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.
- **PC.7 Learning and Teaching Culture** – How the program fosters and ensures a positive and respectful environment that encourages optimism, respect, sharing, engagement, and innovation among its faculty, students, administration, and staff.
- **PC.8 Social Equity and Inclusion** – How the program furthers and deepens students' understanding of diverse cultural and social contexts and helps them translate that understanding into built environments that equitably support and include people of different backgrounds, resources, and abilities.
- **SC.1 Health, Safety, and Welfare in the Built Environment** – How the program ensures that students understand the impact of the built environment on human health, safety, and welfare at multiple scales, from buildings to cities.
- **SC.3 Regulatory Context** – How the program ensures that students understand the fundamental principles of life safety, land use, and current laws and regulations that apply to buildings and sites in the United States, and the evaluative process architects use to comply with those laws and regulations as part of a project.
- **SC.4 Technical Knowledge** – How the program ensures that students understand the established and emerging systems, technologies, and assemblies of building construction, and the methods and criteria architects use to assess those technologies against the design, economics, and performance objectives of projects.

Instructional Methodology

The course consists of occasional lectures, assignments, discussions and technology demonstrations, regular weekly design critiques and periodical group reviews. Though essential concepts will be introduced, this studio is not intended as a "how to" course, but rather as a study of the conceptual and practical implications of designing for change over time. It is expected that students will complete on their own in-depth explorations of any chosen technologies that will be introduced, in order to learn the intricacies of their application.

Term Project and Assignments

As a term project, students will design an Arts Education and Community Center on a site across from NJPAC in downtown Newark. The Center is envisioned as a place of creativity that extends the cultural role of the arts into the community by providing programming and places and spaces for arts education of children and adults. The first assignment is a study of design precedents, followed by the site and program analysis. Some assignments during the term will be focused on the use of specific tools and technologies and their use in the development of design ideas. The results of each assignment will be reviewed and discussed in group sessions. As is typical of any design studio, the students will create digital diagrams, drawings, models, renderings and composite images. At the end of the term, students will deliver a comprehensive presentation that documents the design development process and its final outcome.

Textbooks, Equipment, and Software

No textbooks are required for this class. Occasional readings may be assigned, and PDFs will be made available. Students are expected to have their own laptop and/or desktop computers. Required software is listed below (additional plugins, as necessary, may be integrated into some exercises):

- Rhinoceros 3D (“Rhino”) and/or Revit
- Adobe Creative Cloud Apps (Photoshop, Illustrator, InDesign)

Assistance
Although acquiring digital skills has a fairly steep learning curve, you will often run into problems with and will have questions about the software, techniques and technologies introduced in class. The instructor cannot and will not solve every single step of every problem for you. You will learn, as much as possible, how to find answers and resolve problems using self help, tutorials, the internet, and fellow classmates.

Technical Issues
Problems with a computer (or computers in the computer lab), printers/plotters, laser cutters, flash drives, failure to save or backup, and other technical problems will not be acceptable excuses for late work. Plan ahead for potential problems; develop a plan B. Anticipate problems with crashes, printing/plotting/laser cutting lines, etc. and plan your time accordingly.

Attendance
Attendance at all studio sessions and punctuality are expected. Three unexcused absences will lead to a lowering of the final grade by one full letter grade. Late attendance will be noted and count as a partial absence. All excused absences must be accompanied by an official note or cleared with the instructor prior to the absence.

Expectations
Students are expected to:

- Prepare for, attend, and participate in all class sessions.
- Demonstrate rigor in design and quality of execution.
- Complete each assignment on time and in a satisfactory manner. Late submission will be penalized half of a letter grade per day.

Extensions and Other Issues
To notify the instructors of an issue impacting your ability to complete coursework on time, or to request an extension, please send an e-mail containing the information in the bullets below. Submission of an e-mail does not guarantee an extension. The instructor commits to responding to e-mail within two weekdays; please plan accordingly. In your message, please include:

- Your full name & student number.
- A brief explanation of the issue.
- Your proposed solution to the issue (i.e. if requesting an extension, suggest a suitable replacement deadline).

Grading
The final grade will be determined based on assignments (65%) and the final presentation (35%), which will be judged based on content (50%), graphic quality (35%) and demonstrated technical mastery (15%). To receive a passing grade, students must attend at least 80% of all class meetings, complete all assignments in a satisfactory manner, and fulfill minimal requirements for the final presentation. Interpretation of grades will be as follows:

Grade	GPA	Significance
A	4.0	Excellent
B+	3.5	Good
B	3.0	Acceptable
C+	2.5	Marginal Performance
C	2.0	Minimum Performance
F	0.0	Failure
I		Incomplete

W	Approved Withdrawal
AU	Audited (no academic credit)
S or U	Satisfactory or Unsatisfactory

Other Notes

- **Learning and Teaching Culture**: In addition to the overarching values and ethics of the university, the New Jersey School of Architecture is dedicated to optimism, diversity and solidarity, professional conduct, constructive evaluation and instruction, collaborative community, health and wellbeing, time management and school-life-work balance, respectful stewardship and space management, and well-rounded enrichment. The pedagogy of architecture and design is as complex as it is rewarding, and as dynamically evolving as the people who learn and teach it. This understanding resides at the core of the NJSOA Learning and Teaching Culture Policy.
- **Canvas**: This course will use the learning management system CANVAS as the repository for all readings assignments and project assignments. All student work must be uploaded in the appropriate assignment folders. To access CANVAS, you must have a UCID account with NJIT.
- **Kepler Archiving:** Students must upload copies of their assignments to the new KEPLER 5 system found under the KEPLER tab in CANVAS "Modules". CANVAS assignments folders are automatically ported to KEPLER, although students will need to initiate a separate KEPLER upload. The new KEPLER has an improved interface for easier batch uploading. Any file, regardless of file size, or type can be uploaded, although .pdfs and .jpegs are recommended to ensure viewability.
- **Academic Integrity**: Academic integrity and honesty are of paramount importance. Cheating and plagiarism will not be tolerated. The NJIT Honor Code will be upheld, and any violations will be brought to the immediate attention of the Dean of Students. All students are responsible for upholding the integrity of NJIT by reporting any violation of academic integrity to the Office of the Dean of Students. The identity of the student filing the report will remain anonymous. All students are expected to adhere to the *University Code on Academic Integrity* link and to the *Code of Student Conduct* link**.**
- **Absences**: The NJIT office of the Dean of Students (DOS) maintains a way for students to explain absences that instructors can use to regulate absenteeism. By providing verifiable documentation through filing an online Student Absence Excuse Request form related to the absences within 14 days, a student can ask for accommodation and that their absences not affect their grade. Once the absence has been verified, the DOS will communicate with the instructor. Nonetheless, the DOS only verifies documentation, and it remains the instructor's discretion to provide any accommodation and the student's responsibility to follow up with the instructor. Accepted reasons for absence include bereavement, medical concerns, military activity, legal obligations, or university-sponsored events.

ARCH504G Architecture Studio IV
Schedule | Spring 2024

Week 1 | Jan 18
- Course overview and introductions
- Assignment 1: Precedents Study

Week 2 | Jan 22 & 25
- Precedents Study – group presentation (Jan 22)
- Assignment 2: Site Analysis

Week 3 | Jan 29 & Feb 1
- Site Analysis – group presentation (Jan 29)
- Assignment 3: Program Analysis

Week 4 | Feb 5 & 8
- Program Analysis – group presentation (Feb 5)
- Assignment 4: Conceptual Design

Week 5 | Feb 12 & 15
- Conceptual design desk crits

Week 6 | Feb 19 & 22
- Conceptual design – work-in-progress group presentation (Feb 19)
- Conceptual design desk crits

Week 7 | Feb 26 & 29
- Conceptual design desk crits
- Assignment 5: Mid-term Review

Week 8 | Mar 4 & 7
- Mid-term review (Mar 4)
- Assignment 6: Design Development

Week 9 | Mar 11 & 14
- No classes – spring break

Week 10 | Mar 18 & 22
- Design development desk crits

Week 11 | Mar 25 & 29
- Design development – group presentation (Mar 29)
- Assignment 7: Materials and Assembly

Week 12 | Apr 1 & 4
- Materials and Assembly – group presentation (Apr 4)

Week 13 | Apr 8 & 11
- Desk crits

Week 14 | Apr 15 & 18
- Final Review Requirements
- Desk crits

Week 15 | Apr 22
- Final Review (date to be confirmed)

Note: Schedule is subject to change.