

School of Architecture | Georgia Tech | **Fall 2026**

ARCH 6049: Design + Research Studio 1 (6 credits)

Required Course for M. Arch 2, and/or M. Arch 3

Graduate Offering

ARCH 6049 Syllabus

Design + Research Studio 1, 6 credits

Fall 2026

Instructor Information

Instructor: Kelly Bair

Email: kbair8@gatech.edu

Office Location:

Office Hours:

GTA Name: Yichao Shi

GTA Email: yshi431@gatech.edu

General Course Information

Course Description

Advanced architectural design emphasizing innovation through applied research. Emerging methods of design generation/evaluation. Changing topics: healthcare, fabrication, urbanism, ecology, building performance, cultural institutions. This semester's topic will focus on architectural design strategies for adapting infrastructure towards renewed public use and civic programs.

Course Learning Outcomes

This course is designed to accomplish the following objectives:

- To understand the history of infrastructure buildings and contemporary building infrastructures, specifically their formal, material and tectonic systems and the impact on the social, cultural and political contexts in which they were built.
- To develop design methodologies that synthesize standard methods of architectural production (drawings and models) with media arts.

- To construct disciplinary arguments and conceptual frameworks for architectural design proposals through applied research and analysis.
- To experience travel and field study to synthesize research that is applicable to multiple urban contexts.

Those students who successfully complete the course will be able to:

- 1. Analyze and describe historic and contemporary architectural precedents as a basis for design research.
- 2. Employ tools, both analog and digital, that advance design proposals and architectural representation.
- 3. Present a research-based architectural proposal, verbally and through visual artifacts that is positioned within the discipline as well as advances it.

Note: For all M. Arch courses, see also "Professional Standards Addressed."

Required Course Materials

There is no required textbook for this course. All assigned readings will be provided via box.com.

Grading Policy

This course is structured around 4 assignments. Each assignment is weighted towards the final grade and is listed below. Of the percentages listed below, each assignment will include a 5% professionalism grade that evaluates students on collaborative work ethic (if applicable), attendance, and iterative project development (including the required weekly project upload) and meeting of project deadlines/pin up reviews.

Assignments

- Assignment 0, 10% towards grade
- Assignment 1, 25% percentage/points towards grade
- Assignment 2, 25% percentage/points towards grade
- Assignment 3, 40% percentage/points towards grade

Description of Graded Components

Assignments are comprised of and will be graded based on the quality and rigor by which digital/physical models, drawings, animations and verbal/textual arguments are constructed and presented as well as on time completion.

Studio Grading Rubric

- A grade of "F" indicates failure to meet studio requirements, including attendance and minimum presentation requirements.
- A grade of "D" means significant attendance problems and failure to meet basic studio requirements.

- A grade of "C" means the basic requirements of the studio have just been met, with a plausible but substantially undeveloped project.
- A grade of "B" means basic requirements are met and the project is developed enough for evaluation against studio themes and criteria.
- A grade of "A" means the project clearly demonstrates understanding of studio themes, criteria, and self-motivated exploration beyond basic requirements.

Grading Scale

A	90–100%
B	80–89%
C	70–79%
D	60–69%
F	Below 60%

Course Schedule

Please see the annotated class schedule on Canvas. This schedule is subject to periodic revisions; updated schedules will always be posted on Canvas and/or communicated via email.

This studio will operate with an adjusted schedule and include remote and in-person instruction. The course will meet each week on Mondays & Wednesdays from 12:30-6:10pm and for several weeks of the semester on Tuesdays (*a mutually agreeable time will be determined in the first-class meeting*). To maintain studio culture, students are expected to conduct all zoom sessions in studio (*with headphones*). Students will be expected to upload progress work weekly, each Friday by 12pm, to a shared Miro board.

Week	Dates	Format
Week 01	M 08.24	Bair Visit 01: w. GTA in Studio / A0 Introduced
	T 08.25	Bair Visit 01 in Studio / A1 Introduced
	W 08.26	Bair on Zoom GTA in Studio, In-Studio Portfolio Workshop
Week 02	M 08.31	Bair Visit 02 w. GTA in Studio
	T 09.01	Bair Visit 02 in Studio
	W. 09.02	GTA in Studio
Week 03	M 09.07	Labor Day Holiday
	W 09.09	Bair on Zoom / GTA in Studio

Week 04	M 09.14	Bair Visit 03 w. GTA in Studio A0+A1 Due / A2 Introduced
	T 09.15	Bair Visit 03 in Studio
	W 09.16	GTA in Studio
Week 05	M 09.21	Bair on Zoom / GTA in Studio
	W 09.23	Bair on Zoom / GTA in Studio
Week 06	M 09.28	Bair Visit 04 w. GTA in Studio A0+A+A2 Review
	T 09.29	Bair Visit 04 in Studio w. GTA in Studio A3 Introduced
	W. 09.30	GTA in Studio
Week 07	M 10.05	Georgia Tech Fall Break
	W 10.07	Bair on Zoom / GTA in Studio
Week 08	M 10.12	Chicago Field Trip (Visit 05 w. Bair)
	T 10.13	Chicago Field Trip
	W. 10.14	Chicago Field Trip: Midterm Review
Week 09	M 10.19	Bair on Zoom / GTA in Studio
	W 10.21	Bair on Zoom / GTA in Studio
Week 10	M 10.26	Bair Visit 06 w. GTA in Studio
	T 10.27	Bair Visit 06 in Studio w. GTA in Studio
	W 10.28	GTA in Studio
Week 11	M 11.02	Bair on Zoom / GTA in Studio
	W 11.04	Bair on Zoom / GTA in Studio
Week 12	M 11.09	Bair Visit 07 w. GTA in Studio
	T 11.10	Bair Visit 07 in Studio w. GTA in Studio
	W 11.11	GTA in Studio

Week 13	M 11.16	Bair on Zoom / GTA in Studio
	W 11.18	Bair on Zoom / GTA in Studio
	F 11.20	Bair Visit 08: Final Review

Supplemental Information *(required for all M. Arch courses)*

Professional Standards Addressed

NAAB Conditions for Accreditation

For Professional Degree Programs in Architecture (2020)

The accredited degree program must demonstrate that each graduate possesses the knowledge and skills defined by the criteria below. The knowledge and skills defined here represent those required to prepare graduates for the path to internship, examination, and licensure, and to engage in related fields. The program must provide student work as evidence that its graduates have satisfied each criterion.

Program Criteria (PC) and Student Criteria (SC): The NAAB establishes PC and SC to help accredited degree programs prepare students for the profession while encouraging education practices suited to the individual degree program.

For the purpose of accreditation, while this course will cover more criteria than the ones listed below, the following will be actively covered:

Course Objectives – Specific NAAB Criteria

Levels of delivery and content:

- **Introduced:** This content is introduced, meaning it is referenced, introduced, and/or supported in the course.
- **Practiced:** This content is practiced, meaning students practice, understand, and are assessed on it.
- **Assessed:** This content is assessed, meaning it is a critical component of the course, students are evaluated, and the program assesses the student performance for accreditation and/or annually.

Program Criteria:

- **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. **This content is Assessed in this course.**

- **PC.5 – Research and Innovation:** How the program prepares students to engage and participate in architectural research to test and evaluate innovations in the field. [This content is Assessed in this course.](#)
- **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. [This content is Practiced in this course.](#)
- **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. [This content is Practiced in this course.](#)

Student Criteria:

- **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. [This content is Practiced in this course.](#)

Course Policies

Attendance and/or Participation

Attendance is mandatory for all scheduled classes in both remote and in-studio class formats. Students should notify faculty and GTA's of absences in advance of the missed class. See grading policy for attendance grading.

SoA Attendance Policy

Active participation at all class meetings is mandatory. Absences will be excused only for medical or family emergencies, Institute-approved events, and religious holidays documented in writing. (Notify your instructor in writing during the first two weeks of the semester about any anticipated religious holiday absences.) Late arrivals will be counted as absences.

Attendance of SoA lectures during studio time on Monday or Wednesday from 12:30–1:30 p.m. is required for M. Arch students and highly recommended for B.S. Arch, M.S., and Ph.D. students.

NOTE: Absences due to special and/or unforeseen circumstances must be discussed with the instructor as early as practically possible.

Missing three classes without an approved excuse will result in a letter grade reduction. Missing more than three classes, excused or unexcused, may result in a meeting with your instructor and the Architecture Program Office to determine a course of action, and can result in an incomplete (I) or failing grade (F).

Students are highly encouraged to submit absence verification for documented illness, hospitalization, accidents, family emergencies, or lengthy illnesses to the Dean of Students: <https://studentlife.gatech.edu/request-assistance>

Academic Integrity

Georgia Tech aims to cultivate a community based on trust, academic integrity, and honor. Students are expected to act according to the highest ethical standards.

Review [Georgia Tech's Honor Code](#) and the student [Code of Conduct](#). Any student suspected of cheating or plagiarism will be reported to the Office of Student Integrity.

For expectations of student and instructor conduct, consult [Code of Conduct \(rules/19\)](#) and [Student-Faculty Expectations \(rules/22\)](#).

Student-Faculty Expectations Agreement

At Georgia Tech, we believe that it is important to strive for an atmosphere of mutual respect, acknowledgement, and responsibility between faculty members and the student body.

[The Student-Faculty Expectations Agreement](#) articulates some basic expectations that you can have of me and that I have of you. Simple respect for knowledge, hard work, and cordial interactions will help build the environment we seek.

Core IMPACTS

[Core IMPACTS](#) is the University System of Georgia's General Education curriculum. If you are teaching a course that counts towards Core IMPACTS, you should include a syllabus statement about the Core area and associated [career competencies](#). [This resource from Georgia State University](#) includes template syllabus statements for each Core IMPACTS area that you may adapt for your course.

Accommodations for Students with Disabilities

If you are a student with learning needs that require special accommodation, contact the [Office of Disability Services](#) (404-894-2563) as soon as possible to make an appointment, obtain an accommodations letter, and discuss your special needs. Please also schedule an appointment with your instructor to discuss your learning needs.

Optional Policies, Expectations, and Resources

Collaboration, Group Work, and Use of Generative AI

AI Use is Assignment Dependent

Use of Generative AI in this course will vary by assignment. Check each assignment's instructions to determine what AI use is allowed. Do not assume that because AI was allowed for one assignment, it will be allowed on others. When allowed, responsible use is expected with a required AI Usage Statement.

Draft GT AI policy: https://provost.gatech.edu/sites/default/files/2025-10/AI%20Policy_draft_10.14.2025%202.pdf

Extensions, Late Assignments, & Re-Scheduled/Missed Exams

Students are expected to be pinned up and present for all pin up reviews. Student who are not pinned up at the start of the review will not present and the assignment will be reduced by one full letter grade. Late work will not be reviewed or accepted unless arranged with faculty prior with suitable documentation (doctors note, etc.).

Inclement Weather and Digital Learning Days

If a weather-related event affects campus operations or faculty visit days due to unavoidable travel delays or cancellations, class may be cancelled or pivoted to digital instruction.

Student Use of Mobile Devices in the Classroom

Full attention is required in class. Students using devices for anything other than active note-taking or responding to emergencies may be counted as absent for the class period.

Additional Course Policies

Students are expected to bring a laptop and 3-button mouse to class beginning on the second class meeting. This course requires extensive use of the following software/applications which should be installed no later than the end of the second class meeting:

Rhino 3d Modeling (Version 8.0)

Adobe Suite (Photoshop, Illustrator, InDesign, After Effects, Acrobat)

Word Processing (Microsoft Word or similar)

Miro

Box

All work should be backed up on the cloud (box folder or similar) weekly. Students should get accustomed to backing up their work immediately following the required weekly upload at 12pm each Friday.

CIOS — Course Evaluations

At the end of the term, students are asked to complete the online course evaluation for all courses at Georgia Tech (<https://gatech.smartevals.com>). CIOS scores and comments have different degrees of visibility based on roles:

Reporting access by role	CIOS Scaled Results	CIOS Comments	TA's Scaled Results	TA's Comments
Instructor	Their Own	Their Own	All within their own course	All within their own course
TA Supervisor	N/A	N/A	All within their own course	All within their own course

Reporting access by role	CIOS Scaled Results	CIOS Comments	TA's Scaled Results	TA's Comments
Teaching Assistant	None	None	Their Own	Their Own
School Administration	All within their own unit	None	All within their own unit	All within their own unit
Students	All – Summary only	None	None	None

More information: [CIOS Student FAQ](#)

Campus Resources for Students

Undergraduate Student Academic Success Resources

A list of resources for undergraduate students' academic success and advising can be found at [Success at Tech](#). Academic Support (a unit in the Office of Undergraduate Education & Student Success) provides free tutoring: success.gatech.edu/tutoring.

Graduate Student Academic and Professional Success Resources

A list of resources for graduate students is available on the [Office of Graduate and Postdoctoral Education](#) website.

Student Well-Being

At Georgia Tech, we are concerned about your overall physical, social, and mental well-being. A [comprehensive list of wellness-related resources](#) has been compiled by the Office of the Vice President for Student Engagement and Well-being.

Library & Archives

Contact your Architecture Library subject specialist, Catherine Mancini (catherine.mancini@library.gatech.edu), for research help and information on available resources.

Contact your Architecture Archives liaison, Jody Thompson (jody.thompson@library.gatech.edu), for assistance with archival research and collections.

Georgia Tech Library: <https://library.gatech.edu/> Georgia Tech Archives: <http://library.gatech.edu/archives>

Approved Communication Platforms

[Georgia Tech Approved Communication Platforms](#)

Georgia Tech Values Statement

At Georgia Tech, we see different backgrounds and perspectives as essential to learning, discovery, and creation. We strive to remove barriers to student success and to build a welcoming community where everyone has the opportunity to contribute to our mission. As outlined in our [strategic plan](#), we want to create an environment of holistic learning where all individuals can grow and learn to lead healthy, purposeful, impactful lives.

SoA & College of Design Policies

Archiving

At the end of the semester, all students are required to submit physical and/or digital examples of their work to their instructors or administration for archiving no later than one week after the end of term. By enrolling, each student grants a license to reproduce and display their work online, in forthcoming print publications, and in public exhibitions.

Ownership

For the purposes of continuous improvement efforts, such as accreditations and periodic program reviews, the School will select samples of student work submitted to satisfy course requirements. This includes digital files, papers, drawings, models, etc. Collected samples may be returned to students upon request.

College of Design Facility Rules and Guidelines

Please consult the [Georgia Tech Student Handbook](#) regarding the use of facilities and all Institute policies. Aerosol sprays of any kind are strictly banned from the studio and surrounding areas. A spray painting booth is available in the College of Design shop on the ground floor of the East Architecture Building.

Course Expectations & Guidelines

Per the [GT Catalog](#), all work produced in the College of Design as part of a degree program becomes the property of the College; it may be retained or returned at the discretion of the faculty. The faculty of the School of Architecture reserves the right to refuse credit for any project executed outside the precincts of the College or produced without proper coordination with the faculty.

Emergencies

In case of emergency (e.g., fire, accident, or criminal act), please call the Georgia Tech Police at 404-894-2500. Perry Minyard, IT Support Administrator for the College of Design, is also a firefighter and EMT certified in performing CPR.

Studio Housekeeping (for design studio only)**Daily Workspace Maintenance****Keep Your Space Organized:**

Maintain an organized workspace that respects those around you. Avoid clutter that could distract others or create safety hazards.

Drawings and Models:

Store drawings in designated areas and keep models and materials off the floor. Items left on the floor will be considered trash and discarded by cleaning staff.

Food Policy:

No food is permitted in studio during class hours. Dispose of all food-related trash immediately in designated bins.

Desk Assignment:

Use only your assigned desk unless you have prior permission to use another workspace.

Materials and Production**Surface Protection:**

Never use spray paint, spray adhesive, paint, stain, plaster, concrete, resin, or similar materials on unprotected surfaces. Conduct this work at the CoD shop or other designated facilities.

Cutting Materials:

Always protect desk surfaces when cutting materials. Direct contact can cause permanent damage.

Daily Cleanup:

Clean your workspace at the end of each day: organize your desk, dispose of trash, and return equipment to proper storage.

Shared Equipment:

Clean up after using machinery in the CoD shop, DFL, laser cutter rooms, or other shared spaces. Neglected facilities will be closed until properly cleaned.

End-of-Semester Requirements

All personal belongings and materials must be removed by the announced deadline. Studios and lockers are completely cleared during winter break, summer break, and before the End-of-

Year Show. Items remaining past the deadline will be discarded. Failure to comply may result in an Incomplete grade or grade reduction.

Review Space Protocol

- Remove your work immediately after presentations — others may discard items left behind
- Dispose of trash in designated bins
- Protect wall surfaces from damage or marks
- Return chairs to their original positions