

ARCH 3016 Syllabus

ARCH 3016: Architecture Design Studio 4 (5 credits)
Fall 2026

Instructor Information

Instructor

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General Course Information

Description

Within the curriculum for the undergraduate major in architecture, Design Studio 4 focuses on intermediate architectural design projects emphasizing the functional priorities and expressive potential of building technologies through studio problems of varying programmatic and contextual complexity.

The studio will engage students in the task of producing designs for multi-unit housing in metropolitan urban settings. Apart from sharpening their design skills, the studio is also designed to expose students to the particular challenges and opportunities that living in the city bring to its residents. It will also lead students to think about the way that buildings can shape the city.

The studio will focus principally on two challenges for design: 1) how can the design of our buildings help organize our lives? and 2) how can it enhance lived experience? Students will be expected to demonstrate how they have addressed both these questions; lectures and selected readings will help them acquire some necessary background on these issues.

Innovation is always an important element of studios. In line with the studio's particular focus on the two questions above, students will be pushed to consider innovations at the typological level. Recent social trends are causing a fundamental shift in the organization of contemporary domestic and social life. These trends include the dominance of social media in the functioning of social life, increased prevalence of working from home, and changes in the individual's life trajectory. It is expected that the more ambitious students will take on the challenge to rethink current housing typologies in the light of these developments.

Although the students will be encouraged to think in innovative ways about housing typologies, they will also be expected to respect constraints of economy, and of local codes and zoning regulations, and to show an understanding of the way instigating conditions (development for a specific housing market, charge created by of a commissioning institution, or public body) inform formal decisions. They will also address the challenge of providing a specific formal and social character to the street, recognizing that decisions made at the level of individual projects can shape the overall lived and experienced character of a city.

The studio is supported through a generous fund provided by Niles Bolton Architects. It will be conducted as a competitive exercise. Students will work individually to prepare proposals. A set of projects from each studio section will be selected to compete for four prizes; prize winners will be selected by a panel of three invited external jurors.

Course Learning Outcomes

By the conclusion of this course students should possess the following abilities, skills, and knowledge:

1. Knowledge of design requirements for multi-unit housing, including, basic dimensional requirements for units and blocks, a general knowledge of codes and regulations, and construction types.
 - Expected level of achievement: mastery (can participate in informed discussion within a professional setting)
2. Understanding of the functional relationship between the building and the city, and in particular of the kind of social life that cities engender
 - Expected level of achievement: basic (can follow scholarly debates and lectures)
3. Ability to develop schemes that reconcile structural and service elements and the functional program with the desired formal conception and are informed by an understanding of physical, behavioral, and experiential outcomes of design decisions
 - Expected level of achievement: intermediate (work shows awareness of the organizational logic of all design systems and their functional consequences)
4. Knowledge of selected strategies by which specific experiential, imaginative, and rhetorical qualities can be developed in architectural works, and to articulate these strategies and their aims using a combination of visual and verbal media
 - Expected level of achievement: intermediate (work shows mastery of basic drawing conventions, and awareness of the rhetorical impact of choices made in presentational drawings)

Required Course Materials

Studio-wide reading requirements

The following papers provide background information essential to the studio curriculum. Students must take the time to read through them and to familiarize themselves with key concepts and ideas presented in these texts. The texts will be made available on Canvas:

- Ellis, John G. 2004. "Explaining Residential Density." *Places* 16 (2): 34-43.
- Peponis, John. 1989. "Space, Culture and Urban Design in Late Modernism and After." *Ekistics* 56 (334/335): 93-108.

Housing surveys and design manuals for reference

Students may wish to purchase one or more of these reference texts for their own libraries but are not required to do so. Some of these texts are available online through the institute library; some others will be made available for in-class study in the studio.

- Baker, David. 2022. *9 Ways to Make Housing for People*. Novato: ORO Editions.
- Chey, Katy. 2017. *Multi-Unit Housing in Urban Cities: From 1800 to Present Day*. 1st edition. New York: Routledge.
- French, Hilary. 2008. *Key Urban Housing of the Twentieth Century: Plans, Sections and Elevations*. 1st edition. New York: W. W. Norton & Company.
- Heckmann, Oliver, and Friederike Schneider. 2017. *Floor Plan Manual Housing*. 5th revised and expanded edition. Basel/Berlin/Boston: Birkhäuser. Available at GA Tech Library at the following link: < https://galileo-gatech.primo.exlibrisgroup.com/permalink/01GALI_GIT/jb7gbs/cdi_askewsholts_vlebooks_9783035611496 >
- Levitt, David, and Jo McCafferty. 2018. *The Housing Design Handbook: A Guide to Good Practice*. 2nd edition. Routledge.

Books on graphic standards and drawing conventions for reference

- Ching, F. D. K., & Winkel, S. R. (2016). Building codes illustrated: a guide to understanding the 2015 international building code / (Fifth edition.). Wiley.
- Ching, F. D. K. (2019). Building construction illustrated / (Sixth edition.). John Wiley & Sons, Inc
- Desimini, Jill, and Charles Waldheim. 2016. Cartographic Grounds: Projecting the Landscape Imaginary. New York: Princeton Architectural Press.
- Hall, D. J. (Ed.). (2016). Architectural graphic standards / (Twelfth edition). John Wiley & Sons Inc.
- Hedges, K. E. (Ed.). (2017). Architectural graphic standards / (Twelfth edition, student edition.). Wiley.
- Hopper, L. J. (2006). Landscape architectural graphic standards (Student ed.). John Wiley & Sons.

Grading Policy

All assignments must be completed in order to receive a passing grade in the class.

A grade of 'Incomplete' will be granted only under extraordinary circumstances, and only if documentation of evidence for the reason is available. No grade will be marked incomplete without a prior agreement between the student and the instructor.

Students are asked to complete the online course evaluation of all courses at Georgia Tech at the end of the term.

Description of Graded Components

Consistent with the institute requirements, final course grades are awarded on a scale of A-F with no +/- grades permitted. The assessment of student work will be based on three sets of criteria:

1. Achievement of the four learning outcomes (70%) graded as follows:

Grade	Description
A	Expectations exceeded for at least two learning outcomes and met for all, exhibiting superior design skills and depth of understanding of all design issues
B	Expectations met for each learning outcome, exhibiting overall competence in design informed by an understanding of basic design issues
C	Expectations not met for three or more learning outcomes, showing minor deficiencies in design skills and incomplete understanding of design issues
F	Incomplete work, expectations not met for any of the learning outcomes, showing lack of motivation or interest in the subject and serious deficiencies in design ability
(The first three categories will be taken on a linear scale to calculate the numerical percentage; scoring F will translate directly into an F for the course).	

2. Application and participation: Scored directly, based on consistency of attendance and participatory activity during studio sessions (20%)

3. Portfolio: Scored directly, based on the quality of a printed and digital portfolio with all GT student work, including work from the semester and the semester end portfolio event (10%)

USG Required Course Policies

Attendance and/or Participation

Active Participation at all class meetings is mandatory and crucial to successful completion of the class. A systematic pattern of absences without prior permission or incomplete submissions can be grounds for reduction of grades at the discretion of the instructor.

Absences will be excused only for medical or family emergencies or for Institute-approved events and religious holidays documented in writing. Absences due to other special or unforeseen circumstances must be discussed with the instructor as early as practically possible. It is a school-wide policy that students must notify their instructors in writing during the first two weeks of the semester about any anticipated absences for religious holidays.

Late arrivals will be counted as absences.

Attendance of official SoA lectures during studio time is highly recommended for all BS ARCH students but is not required.

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 on a quiz, exam, or assignment will be reported to the Office of Student Integrity, who will investigate the incident and identify the appropriate penalty for violations.

Core IMPACTS

NA

Additional Georgia Tech Required Policies

Accommodation 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 to discuss your special needs and to obtain an accommodations letter. Please also e-mail me as soon as possible in order to set up a time to discuss your learning needs.

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](#) document (<https://catalog.gatech.edu/rules/22/>) articulates some basic expectations that you can have of me and that I have of you. In the end, simple respect for knowledge, hard work, and cordial interactions will help build the environment we seek. Therefore, I encourage you to remain committed to the ideals of Georgia Tech while in this class.

Optional Course Expectations, Policies, and Resources

Criticism and peer review are central to the learning experience of the studio, whether in one-on-one scenarios or as informal group discussions. Each student is responsible for the production of their own work whether in individual or team projects. Students should be fully prepared for scheduled desk crits and pin-ups; instructors will make every effort to see as many prepared students as possible during studio sessions. Design studio production requires both personal initiative and efficient time management fostering intellectual and creative growth.

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 also reserves the right to refuse for credit any project executed outside the precincts of the College or otherwise produced without proper coordination with the faculty.

Pre- &/or Co-Requisites

NA

Extra Credit Opportunities

NA

Collaboration, Group Work, and Use of Generative AI

All drawings that describe the geometry of the design—orthographic views, electronic 3D models, and projective drawings such as axonometric and perspectival views—must be authored directly and solely by the student without the assistance of any AI-based technology. AI technology may be used to generate impressionistic views or for intermediate design tasks such as creating variations of a given form only with the permission of instructor. The source of each drawing, sketch, or text that is submitted or presented for review must be truthfully noted, including the full details of the software used, whether this includes any AI based technology or not. Deliberate deception in this matter may be subject to penalties ranging from grade reduction to a failing grade.

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

Interim and final design studio projects and presentations are due on the dates specified in the syllabus. Late submissions and/or absences from interim and final reviews are only admissible under extraordinary circumstances or if in conflict with official Institute events. Please notify the instructor in advance of a potential conflict or at the earliest opportunity should such circumstances arise.

By institute policy Georgia Tech, some exceptions are made for “approved Institute activities” (e.g., field trips and athletic events) and religious observances. [Read more about approved exceptions](#). Note also that instructors are encouraged to consider the impact of events like the [All-Majors Career Fair](#) and off-campus interviews, and to plan accordingly.

Inclement Weather and Digital Learning Days

With developments and improvements to digital instruction over the past few years, the Institute has developed policies to leverage digital learning as much as reasonably possible. The policy sets forth requirements, procedures, and responsibilities related to the scheduling of digital instruction and/or make-up classes due to the modification of campus operations, closing of campus, or the necessary closing of instructional spaces for any reason (including but not limited to emergencies, such as inclement weather, power outages, or other infrastructure failures). Students should await communications from their instructors regarding the delivery of their classes during that period based upon the Digital Learning Days for Modified Campus Operations Policy. Students should follow guidance and/or directions provided by the Office of the Vice President for Student Engagement and Well-Being regarding student activities, events, programs, and services.

Student Use of Mobile Devices in the Classroom

The use of mobile devices for non-course related activity (including personal use) in the classroom is not permitted. Students must follow any instructions issued by the instructor on the use of such devices.

Additional Course Policies

Archiving

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

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 now in operation in the College of Design shop, on the ground floor of the East Architecture Building.

Ownership

Physical copies of student work submitted to the school to satisfy course requirements—including, but not limited to digital files, papers, drawings, and models—become the property of the school. It is assumed as no obligation to safeguard such materials and may, at its discretion, retain them, return them to the student, or discard them.

Studio Housekeeping

Organize Your Space: Please ensure that your workspace is organized in a manner that respects the needs of those around you. Avoid clutter that may become a nuisance, distraction, or even pose a hazard.

Keep Drawings Filed and Models Off the Floor: Our cleaning staff works diligently to keep the studio clean and tidy. To assist them in their efforts, please keep your drawings properly filed and ensure that models and model making materials are not left on the floor.

No food during studio hours: Food is strictly prohibited in studio during class. We kindly request that you refrain from consuming any food during class.

Dispose of food-related trash immediately: If you do have any food-related trash, please ensure it is promptly placed in one of the designated trash bins after use. This will help us maintain hygiene standards within the studio.

Respect for work and workspace: Avoid touching or moving someone else's work without their explicit permission. Additionally, keep your own workspace organized and clean to ensure a productive environment for everyone.

Borrowing supplies or equipment: It is imperative that you seek explicit approval before borrowing supplies or equipment from others. Their materials are personal investments that should not be taken without consent.

Desk Usage: Please refrain from using a desk that has not been assigned to you unless you have obtained prior permission. This will help us maintain an organized and efficient workspace for everyone.

Work Surface Protection: It is strictly prohibited to use spray fixative, spray adhesive, paint, stain, plaster, concrete, resin or any similar materials on unprotected desktops, floors, or other work surfaces within the studio, classrooms, corridors, and stairways. These types of production should be carried out at the CoD shop or other designated facilities.

Cutting Materials: Under no circumstances should materials be cut on an unprotected desk surface. Doing so can lead to scratches or permanent damage.

Clean up your workspace: Please make it a habit to clean up after yourself at the end of each day. This includes organizing your desk, disposing of any trash, and returning equipment or supplies to their proper places.

Respect for studio equipment and contents: It is essential that we treat our studio equipment and its contents with care and respect. Please refrain from defacing or abusing the studio property in any way.

End-of-Semester Clean-Up: At the end of each semester, it is mandatory for all personal belongings and materials to be removed from the studio. Workspaces must be left clean and in good working order. Studio spaces and lockers will be completely cleaned out over the winter break and the summer break as well as at the end of the Spring Semester in preparation of the End-Of-Year-Show. Announcements will be sent by the director of operations, SoA administration and/or the CoD administration. Students are expected to remove personal belongings, materials, models, tools, clothing, etc. by the provided deadline. Anything that is left in the studio or in lockers past the provided deadline will be disregarded.

Failure to comply may result in a grade of "Incomplete" until the workspaces are properly attended to, or a grade reduction.

Review Spaces

Leave the space better than you found it.

Clear your work: It is crucial that you remove all your work from the review space after your presentation. Any work left behind may be disregarded by others who need to use the space.

Dispose of trash: We kindly request that you dispose of any trash or waste properly in designated bins. Keeping the review spaces clean is essential for maintaining a professional and welcoming atmosphere.

Protect wall surfaces: While we encourage creativity in presentation formats, please ensure that wall surfaces are not damaged or left unclean. If you need assistance with alternative display options, please discuss them with your studio instructor.

Arrange chairs: After using the review space, please return chairs to their original positions or leave them orderly within the area. This will facilitate a smooth transition for other studios who may require the space later.

Campus Resources for Students

Undergraduate Student Academic Success Resources:

A list of resources for undergraduate students' academic success and information about advising can be found at [Success at Tech](#).

Academic Support: Academic Success and Advising (a unit in the Office of Undergraduate Education & Student Success) provides free support for your courses. Students can attend scheduled supplemental review (PLUS) sessions, stop by Drop-In Tutoring, or schedule a one-on-one appointment through Knack. To explore what options work best for you, please visit us online at success.gatech.edu/tutoring, email us at tutoring@gatech.edu, or come see us at Clough Undergraduate Learning Commons, Suite 283.

Library & Archives:

Need to do research but don't know where to start? Contact your Architecture Library subject specialist, Catherine Manci (catherine.manci@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 website: <https://library.gatech.edu/>

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

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 and maintained by the Office of the Vice President for Student Engagement and Well-being (student-resource-guide.gatech.edu)

More resources on supporting student well-being on the syllabus and beyond are available through the [Learning Well Initiative](#).