

ARCH 4823-8823-6352 Syllabus

Design, Ethics, and Technology, ARCH 4823-8823-6352, 3 Credits

Fall 2026

Instructor Information

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General Course Information

Description (ARCH 6352)

Approaches to architectural form, style, and tectonics from aesthetic, social, and technological perspectives. Instrumental and symbolic uses of architectural media in design and building production.

Additional description (ARCH 4823-8823-6352)

Architecture and urban design are very complex professions for the transformation of the built environment. Every day designers translate concepts and ideas into built forms, mediate between financial constraints and development policies, synthesize complex traditions and data, and theorize on inhabitants' and clients' needs with the aim of advancing socio-cultural change. Historically, design and technological advancements have shaped and reshaped the profession as well as the designer's ethical responsibilities. Maintaining a symbiotic and evolving relationship through change, the development of tools and techniques has nourished new design forms, processes, and methods and vice versa.

In recent decades rapidly emerging technologies have put pressure on what architecture and urban design are and can do. Computation and artificial intelligence have transformed ideas of project conception, design, and execution, *de facto* changing the role of architects and urban designers. Scripting, parametric modeling, and digital tools have generated, simulated and optimized design while exploring complex forms and performance-driven solutions. In the meantime, the use of rapidly advancing technologies has also exposed issues of unclear authorship, potential copyright infringement in training data, and ethical concerns about accountability and the loss of human agency in design. Once again, the

risk is to lose the “civic compass” while reducing the designer’s role to that of a user of so-called “intelligent” tools.

By starting from issues of resource exploitation, deterritorialization, and place reduction in the post-digital space, the course examines the site as a ground for knowledge production, where concepts and tools emerge through practice, and engagement has lasting consequences. In class we investigate the relationship between design, technology, and ethics questioning the separation of theory from the conditions in which it takes shape. During the course students will learn about knowledge embedded in lived experience, shared practices, and the gestures that shape everyday life. By connecting design and ethical implications, they will see how through architecture and urban design the site is built, destroyed, or repaired. Meetings will investigate the ethical ramifications of mass customization and the merger of computation and post-industrial automation. In class we will analyze intelligences’ migration, destruction of boundaries among realms, and nomadic spatial practices. Case studies will examine self-build architecture, automated manufacturing and imitation, as well as self-constructed cities. The goal is to understand established human-nonhuman intersections, investigate scale recalibration and processes, and explore opportunities for new ethical and ecological futures.

Course Learning Outcomes

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

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

- Explore and recognize major intersections between architectural/urban design, technology, and ethical issues.
- Develop an understanding of and describe the tensions between architectural/urban design, ethics, and technology through a study of primary and secondary sources.
- Analyze and interpret the cultural significance and ethical implications of urban/architectural processes, designs, and debates focused on technological innovation.
- Develop and demonstrate skills in writing and oral presentation.

Required Course Materials

There are no required textbooks. By the end of the term all students will be familiar with the readings required for our discussions which are part of the requirements for the course. All readings are available in Canvas. Additional reference materials to guide assignments and discussions will also be posted online.

Grading Policy:

Grade evaluations will be based on consistent, high-quality work over the entire semester. Students will be evaluated on their timely and thorough completion, depth of exploration, and consideration of assigned work, their professional competence in presenting work, and their continuous and meaningful participation in class discussions. The grade scale for all individual components of the course as well as for completion of the final course grade will be as follows:

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

Assignments:

- Course Attendance and Participation, 20%
- Seminar Presentation, 20%
- Research Presentation, 20%
- Research Project, 40%

No incompletes will be awarded without an appropriate reason or a prior meeting between the student and the instructor, either in person or online. All assignments must be completed to receive a passing grade in the class. Incompletes will be granted only under extraordinary circumstances.

Description of Graded Components:

Regular attendance to meetings and discussions is evaluated in during our meetings. Appropriate and effective participation in discussions is evaluated during discussions. You will present a report on two readings to the class once during the term. You will prepare a presentation on your own research and develop a written project on the same research.

Supplemental Information (for ARCH 6352):

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.

The criteria encompass two levels of accomplishment:

- *Understanding*—The capacity to classify, compare, summarize, explain, and/or interpret information.
- *Ability*—Proficiency in using specific information to accomplish a task, correctly selecting the appropriate information, and accurately applying it to the solution of a specific problem, while also distinguishing the effects of its implementation.

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:

PC.4 History and Theory— How the program ensures that students understand the histories and theories of architecture and urbanism, framed by social, cultural, economic, and political forces; nationally and globally. *This content is **Practiced**, meaning students practice, understand, and are assessed on it.*

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**, meaning students practice, understand, and are assessed on it.*

Course Policies

Attendance and/or Participation

Active Participation at all class meetings is mandatory and crucial to the successful completion of the class. Absences will be excused only for medical or family emergencies, Institute-approved events, and religious holidays documented in writing. You must notify

your instructor in writing during the first two weeks of the semester about any anticipated absences for religious holidays. Late arrivals will be counted as absences.

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, might result in a meeting with your instructor and the Architecture Program Office to determine a course of action, and can result in an incomplete grade (I) or a failing grade (F) in this course.

Students are highly encouraged to submit any class absence verification that is required due to documented illness, hospitalizations, accidents, death in the family, family emergencies, and 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. All Georgia Tech students should familiarize themselves with and abide by the Georgia Tech Honor Code: <http://www.catalog.gatech.edu/rules/18/>. Faculty shall report instances of academic dishonesty to the Office of the Dean of Students.

For expectations of student and instructor conduct more generally, consult section 19 of the catalog listed above, entitled “Code of Conduct,” <http://www.catalog.gatech.edu/rules/19/>, and section 22, entitled “Student-Faculty Expectations,” at <http://www.catalog.gatech.edu/rules/22/>.

All persons in the classroom are expected to behave with courtesy towards others and in a way that does not interfere with the regular conduct of the class. Cell phones are to be turned off when students enter the classroom and should remain off for the duration of the class; laptop computers are to be used only for taking notes; and students should not engage in private conversations while the instructor or other students are speaking. Anyone not adhering to these basic courtesies will be asked to leave.

Core IMPACTS

This course does not count towards Core IMPACTS.

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 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](#) articulate 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.

Collaboration, Group Work, and Use of Generative AI

The use of AI in Professor Dainese's courses is allowed. However, AI use is never required, and there are specific rules for students who use it. Students who use AI in a manner deemed unacceptable by the outline below will be considered to have violated the academic dishonesty policies set forth by the college, which puts the student at risk of failing or expulsion.

Acceptable Uses of AI in This Course:

- 1) Initial Learning: AI can be used to find general information or begin your research into a topic. Example: I tell you to select an ecosystem for a paper you're writing – you can GPT different types of ecosystems to start deciding.
- 2) Brainstorming: AI can help generate ideas for your writing, or help you to plan what you want to present in your paper/assignment/project. Example: You are stuck between tundra or desert ecosystem and want to plan out which you'd prefer to use
- 3) Grammar and Editing: AI can be used for grammar, formatting, and editing.

Prohibited Uses of AI in This Course:

- 1) Cheating: Submitting entirely or majorly AI-generated work as your own, including discussion reports, essays, free response quiz/exam questions, and projects, is strictly prohibited.

2) Plagiarism/Sourcing: Do not rephrase or paraphrase sources using AI without proper citation. AI cannot be used as a primary or secondary source. You may use AI to find sources, as discussed in “Initial Learning” above, but you cannot cite the AI itself, you must confirm and cite the source it came from.

3) Misrepresentation: Presenting AI-generated ideas or analysis as your own is considered academic dishonesty. Any time AI is used, you must acknowledge it. See below on how I want you to acknowledge it.

Acknowledgement requirement for AI use:

WHEN AI IS USED, you must mention what it was used for, which AI was used, and the day you used it. You may add this statement at the end of your assignment (such as after the works cited, or at the bottom of a free-response question).

Example: “In this paper, ChatGPT 5o was used to help establish a baseline idea to write the paper, then to help locate primary sources A, B, C, and then to edit the grammar in the last 3 pages of the document on 8/18/2025.”

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

Any requests for assignment extensions or prior arrangements for missed quizzes must be made as soon as possible and no later than three days before the due date.

Accommodations will be made for unanticipated student illnesses, approved Institute activities or religious observances but communication is key for flexibility: email the instructor as soon as possible! Without accommodation late homework will be penalized.

Georgia Tech makes some exceptions for “approved Institute activities” (e.g., field trips and athletic events) and religious observances. See this catalog page for more information (<https://catalog.gatech.edu/rules/4/>). Consideration will also be made for the impact of events like the All-Majors Career Fair and off-campus interviews and to plan accordingly. Once again, a minimum of one-week advanced notice is essential.

Approved Communication Platforms

https://gatech.service-now.com/home?id=kb_article_view&sysparm_article=KB0023604

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.

[SPRING 2026 ARCHIVE](#)

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 also reserves the right to refuse credit for any project executed outside the precincts of the College or otherwise 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. Please note that Perry Minyard, IT Support Administrator for the College of Design, is also a firefighter and an Emergency Medical Technician (EMT) certified in performing CPR.

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 (<https://strategicplan.gatech.edu/values>). We want to create an environment of holistic learning where all individuals can grow and learn to lead healthy, purposeful, impactful lives.

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.

Campus Resources for Students

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 \(gatech.edu\)](#))