School of Architecture | Georgia Tech | Fall 2026

ARCH 1020: Media & Modeling I

Required Course for B.S.Architecture
Undergraduate offering

ARCH 1020 Syllabus

Credit Hours: 3 credits
Location: T.B.D.
Schedule: T.B.D.

Instructor: Bryce Truitt

Email: brycetruitt@gatech.edu

Office Location: Architecture West Building, Room 357

Office Hours: by Appointment

TA Name: T.B.D.

TA Email: T.B.D.

General Course Information

Course Description

Intermediate approaches to two and three-dimensional modeling and representation in architecture using both manual and digital media techniques. The initial course in the Media and Modeling sequence, a co-requisite to Arch3825, introduces students to the foundational conventions of architectural representation, techniques in current media towards the construction of two and three-dimensional drawing, as well as the historical pretext and discourse surrounding key media and convention types within the discipline. Students develop an initial visual acuity + literacy from art and architectural precedent, an understanding of architectural media's propensity to evolve, digital + analog media limitations and potentials alike, and the reciprocal relationship between cognition + perception with representation existing between. Course material is divided into three modules, (1) Elements: Point, Line, Surface, (2) Projection: Orthographic, Oblique/Axon, Perspective, and (3) Mixtures: Collage, Montage, Assemblage, that each facilitate a requisite level of skill development for the compliment of the *fundamentals of design I* studio assignment sequence. The final module serves as a collaborative course exam, integrating techniques from the first two modules towards more composite modes of representation. The course covers the basis of manual and digital drawing construction, drawing types, digital + physical models, analyses, diagrams, rendering, and other representational techniques and conventions.

Course Learning Outcomes

The course is designed for students to develop and demonstrate:

- Construction of orthographic projection drawings. (plan, section, elevation)
- Construction of oblique projection drawings. (oblique, axonometric, isometric)
- Construction of analytical drawings. (2D and 3D)
- Construction and manipulation of human perspective.
- Construction and manipulation of line-based geometries. (line, polyline, curve)
- Construction and manipulation of open and closed 3D objects/surfaces.
- Construction and manipulation of surface and line based geometries, open or closed, through point(s).
- Use of digital media towards the production of physical-material 3D models and drawing representation.
- Use of fundamental light and shadow rendering techniques.
- Fluid interchange between various digital software.
- Post-processing techniques using Adobe suite applications and artificial intelligence.
- An understanding of basic principles of visual perception relative to constructed representation (Gestalt psychology)
- An increasing visual acuity required for elevated drawing output.
- An increasing literacy of art and architectural representation precedents.
- An ability to utilize Rhino3d as a default drafting and modeling software.

At the conclusion of this course, students should not only have developed an intermediate technical proficiency in the use of digital media common to the current conceptual/schematic design discipline and research (Rhino3D 7, Adobe Illustrator, Adobe Photoshop, Adobe InDesign), but critical knowledge relative to architectural representation, media, and convention:

- An understanding of drawing, modeling, and making as a transformative process, to which representation is not merely the conveyance of a spatial idea or condition, but an intermediate artifact with consequences capable of changing both the built environment and the cognition of its maker/viewer.
- An understanding of enduring architectural conventions against media's inevitable change over time.
- A knowledge of the necessity and means of interoperability (i.e. mixtures) between multiple digital media types (various software) in the production of successful design and modes of architectural representation.
- A knowledge of the advantages and disadvantages of digital media in production, cognition, and potential for transformation in the design process as a resultant of architectural representation.
- An understanding of art and architectural precedent, analog, or referenced works as fertile material in the process of design.

Required Course Materials

There is not a required textbook for this course. However, each assignment will involve a series of readings, references, and resources which will be made available through the course Canvas page as PDF files or through the GT Library.

Grading Policy

The final course grade will be a cumulative total of points earned from all assignments. The sum of a perfect score in all assignments is 100. The third and final module serves as the course exam, requiring

students problematize representation/production in 2-person collaborations, resulting in a number of deliverables submitted any time prior to the designated final exam period of the course.

An overall course assessment of 70% (“C”) or higher is required for eligibility to take the subsequent media and modeling course. Students are expected to check Canvas for individual assignment grades and overall performance assessments. Students with an average assessment in the “C”, “D”, or “F” range at midterm are expected to seek counsel from their assigned course instructor and coordinator prior to the drop date: October 28, 2023. Whenever students have concerns about their performance, they are strongly encouraged to discuss them with their instructor.

There will be no 'incompletes’ awarded without appropriate reason nor without a prior meeting, either in person or on Teams, of the student and the instructor. All assignments must be completed in order to receive a passing grade in the class. ‘Incomplete’ assessment will be granted only under extraordinary circumstances.

Assignments

Student performance will be evaluated by their assigned instructor and teaching assistant for twelve (12) exercises over the course of the semester:

Module 1: Point, Line, Surface (25pts) (Individual work)

Assignment 1a:	5 pts.
Assignment 1b:	5 pts.
Assignment 1c:	5 pts.
Assignment 1d:	10 pts.

Module 2: Projection - Orthographic, Oblique, Perspective (35pts) (Individual work)

Assignment 2a:	7.5 pts.
Assignment 2b:	7.5 pts.
Assignment 2c:	10 pts.
Assignment 2d:	10 pts.

Module 3: Collage, Montage, Assemblage (40pts) (Group Exam)

Assignment 3a:	7.5 pts.
Assignment 3b:	7.5 pts.
Assignment 3c:	10 pts.
Assignment 3d:	15 pts.

Description of Graded Components

Three (3) modules with twelve (12) assignments total assignments comprise the course. Assignments are procedural and due on a weekly basis while simultaneously progressing towards one or more refined deliverables at the end of the module. Generally, students will have one week to complete each assignment. Students are responsible for checking Canvas for the release of assignments, assignment due dates, general announcements, instructional team correspondence, and obtaining lecture materials that may include presentation slides, online tutorials and other resources.

For each assignment, students will be required to submit a working file and a presentation file in the assignment portal on Canvas. Depending on the content of each assignment, working files may be Photoshop (.psd), Illustrator (.ai), InDesign (.idd), or Rhino (.3dm) and presentation files may be raster (.jpg) or vector (.pdf). The first two modules are comprised of independent-individual work, while the third and final module will be completed as a series of group assignments. The instructional team will provide

an assessment and feedback for each assignment in a timely manner, so that students may refine or improve work as required for subsequent exercises and for their portfolio.
The optional weekly technical workshop led by teaching assistants is intended to directly facilitate any questions or challenges that arise during the completion of each assignment. Attendance is not required, but strongly encouraged for help on assignments and additional skill development. If students have questions or need help on a specific assignment, you must contact the assigned instructor AND teaching assistant together in the same canvas message or email, with the working file as an attachment. This is required for the instructional team to respond quickly and efficiently.

Grading Rubric

Assessments will be based on the unique requirements of each assignment related to the following four criteria:
Objective Fulfillment: Presentation and/or working file(s) indicate accurate completion of assignment requirements, showing the student effectively demonstrated key processes, commands, and/or tools required for the assignment.
Procedural Adherence: Presentation and working file(s) indicate adherence to step-by-step procedure as delineated in assignment brief, in-class tutorial(s), and/or canvas announcements.
Representation Conventions: Effective use of any relevant conventions of architectural representation for the assignment including but not limited to line-weight/type, labeling, orientation, scale, surface depiction, etc. are effectively deployed.
Craft & Quality: Presentation and/or working file(s) display sufficient control, precision, skill, resolution, and organization of workflow, for the given media and/or any presentation materials.

Grading Scale

The grade scale for all individual assignments of the course, as well as for the final overall course assessment will be provided as follows:

A – Excellent (90.00% - 100.00%)

B – Good (80.00% - 89.99%)

C – Satisfactory (70.00% - 79.99%) *Arch. majors must earn 'C' or higher to move into the next required studio.*

D – Unsatisfactory (60.00% - 69.99%)

F – Failing (00.00% - 59.99%)

Course Schedule

An annotated course schedule can be found on Canvas. This schedule is subject to periodic revisions; updated schedules will always be posted on Canvas. Attending SoA lectures during studio time on Mondays or Wednesdays from 12:30–1:30 p.m. is required for M. Arch students and highly recommended for B.S. Arch. Students. Studio Instructors will notify students ahead of time if they will be expected to attend a specific lecture beyond the course curriculum.

Course Policies

Attendance and/or Participation

Active Participation in all course tutorials and lectures is mandatory and essential to successful completion of the class. Absences will be excused only for medical or family emergencies or for Institute-approved events and religious holidays documented in writing. In the event of a medical emergency or an illness that is severe enough to require medical attention, students are responsible for contacting the Office of the Dean of Students as soon as possible to report the

medical issue or emergency, providing dated documentation from a medical professional and requesting assistance in notifying their instructors. The medical documentation will be handled confidentially within the Office of the Dean of Students and will inform a decision as to whether communication with instructional faculty is appropriate. According to the institution's policy, you must notify your instructor in writing during the first two weeks of the semester about any anticipated absences for religious holidays). Attendance will be taken at the beginning of each class period at 12:30pm by either an instructor or graduate teaching assistant.

NOTE: Absences due to special and/or unforeseen circumstances, whether excused or unexcused, must be discussed with the instructor as early as practically possible. Three (3) unexcused absences will result in a full letter grade deduction for the overall semester evaluation. Five (5) unexcused absences will result in failure of this course. . Attendance will be taken by graduate teaching assistants at the beginning of class for the majority of class sessions. Occasionally, students will be asked to submit in-class progress as a form of attendance and participation for a given day. Three (3) unexcused late arrivals (5 to 15 minutes late) will count as one (1) unexcused absence. Unexcused tardiness beyond 15 minutes from the start of studio will count as an unexcused absence.

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.

Course Expectations and Guidelines

Criticism and peer review are central to the teaching and learning process 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. With teamwork, each member of the team is equally responsible for the research and output; a teammate's work may not be delegated to another

team-mate to produce. 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. During the semester, each student should rigorously explore the project's conceptual foundations through reading, writing, drawing, and model-making. 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 with proper coordination with the faculty.

Collaboration, Group Work, and Use of Generative AI

While all assignments in the first two modules are individual production, students are encouraged to formulate peer groups to which they can support one another in software skill development, troubleshooting, and overall discourse on course material. The best work occurs outside of a vacuum.

The third and final module will entail two-person group collaboration towards the development of multiple representation outcomes. Each member is expected to contribute equally, regarding the importance of contribution from all members of the collaborative team. Each member of the collaboration will be required to evaluate their own contribution, as well as those of their peers, at the end of the collaborative assignment. Peer reviews will be factored into the individual grade provided for the final module.

The use of generative AI of any type is prohibited unless otherwise noted in a specific assignment brief. Outside of the third and final module, all work for the course should be a product of an individual effort. Disregard for this will be regarded as academic misconduct and plagiarism. Students will receive 0% on the assignment and subject to greater penalty.

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

Interim progress 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 allowed under extraordinary circumstances or if in conflict with official Institute events, otherwise, missed reviews are unexcused and result in 10% grade reductions for each studio session beyond the deadline. Please notify the instructor in advance of a potential conflict or at the earliest opportunity should such circumstances arise.

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

Mobile devices may only be used to facilitate the design course curriculum, as a tool for precedent and project research, photographic documentation, or basic computational usage as a calculator. However,

the use of mobile devices for social engagement, social media, personal phone calls, or text messaging, is prohibited during studio hours. The course instructor reserves the discretion to dismiss a student for engaging in personal use of a mobile device during scheduled studio time, counting as an unexcused absence for the day.

Extra Credit Opportunities
Extra credit opportunities are never guaranteed but may be offered at the discretion of the instructor. Intermittently, impromptu in-class progress submissions through canvas will serve as a daily attendance and, on occasion, minor extra credit.

Extensions & Late Assignment Submissions
There will be two (2) dates associated with the submission of all assignments in Canvas. One is the actual, announced due date and the other is assignment window for partial credit (closes seven (7) days after actual due date). Assignments submitted before the due date and time are eligible for 100% credit. Assignments submitted after the due date and time but before the assignment window closes will be evaluated at 80% of the original assignment point value. Assignments will not be accepted after the assignment window closes and students will receive a 0% for the assignment.

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
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.

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 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: 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.