Program Report

Georgia Institute of Technology Date 9/7/2022

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National Architectural Accrediting Board, Inc.



Architecture Program Report (APR) 2020 Conditions for Accreditation 2020 Procedures for Accreditation

| Institution | Georgia Institute of Technology | | | |
|--|---|--|--|--|
| Name of Academic Unit | School of Architecture | | | |
| Degree(s) (check all that apply) Track(s) (Please include all tracks offered by the program under the respective degree, including total number of credits. Examples: 150 semester undergraduate credit hours Undergraduate degree with architecture major + 60 graduate semester credit hours Undergraduate degree with non-architecture major + 90 graduate semester credit hours) | □ Bachelor of Architecture Track: Master of Architecture Track: 2-year program: Pre-Professional Degree + 60 credit hours Track: 3.5-year program: Non Pre-Professional Degree + 102 credit hours □ Doctor of Architecture Track: Track: Track: | | | |
| Application for Accreditation | Continuing Accreditation | | | |
| Year of Previous Visit | 2014 | | | |
| Current Term of Accreditation (refer to most recent decision letter) | Continuing Accreditation (Eight-Year Term) | | | |
| Program Administrator | Ingeborg Rocker, School Chair | | | |
| Chief Administrator for the academic unit in which the program is located (e.g., dean or department chair) | Ellen Bassett, PhD, Dean, College of Design | | | |
| Chief Academic Officer of the Institution | Stephen McLaughlin, PhD, Provost and Executive Vice President for Academic Affairs | | | |
| President of the Institution | Ángel Cabrera, PhD, President | | | |
| Individual submitting the APR | Ingeborg Rocker, School Chair (started 9/1/22) Scott Marble, Previous School Chair | | | |
| Name and email address of individual to whom questions should be directed | Ingeborg Rocker, ingeborg.rocker@design.gatech.edu Scott Marble, scott.marble@design.gatech.edu | | | |

Submission Requirements:

- The APR must be submitted as one PDF document, with supporting materials
- The APR must not exceed 20 MB and 150 pages
- The APR template document shall not be reformatted



INTRODUCTION

Progress since the Previous Visit (limit 5 pages)

In this Introduction to the APR, the program must document all actions taken since the previous visit to address Conditions Not Met and Causes of Concern cited in the most recent VTR.

The APR must include the exact text quoted from the previous VTR, as well as the summary of activities.

Program Response:

Conditions Not Met in most recent VTR (February 2014) 1.1.2 Learning Culture and Social Equity

2014 Team Assessment: The SOA provides a positive and respectful learning environment. However, the program continues to suffer from a systemic lack of representation in minority and women faculty. Previous NAAB visiting teams, in 2002 and 2008, made the same observation.

This condition was met with key administrative, faculty, and staff appointments, noted in the 2016 Interim Program Report. This condition was satisfied by the two-year and five-year Interim Program Report.

A.2 Design Thinking Skills

2014 Team Assessment: Insufficient evidence was found in regard to the ability to consider diverse points of view, reach well-reasoned conclusions, and test alternative outcomes against relevant criteria and standards, specifically in low-pass work.

This SPC is no longer specifically required under the 2020 Conditions and therefore the program decided to include it within the following courses under PC.2 Design: ARCH 6040 Advanced Studio II and ARCH 6020: Media + Modeling II.

A.4 Technical Documentation

2014 Team Assessment: Evidence of an ability to write an outline specification was not found in any course work. Technically clear drawings and models illustrating and identifying the assembly of materials, systems, and components appropriate for a building design are covered in ARCH 6230 Construction Technology 2 and upper-level studios.

This SPC is no longer specifically required under the 2020 Conditions. This condition has been met by revising ARCH 6315 Practice of Architecture I to include a lecture on specifications and an accompanying assignment on writing an outline specification. A new class, ARCH 7102 Integrated Building Systems II (formerly ARCH 6230 Construction Technology II) and ARCH 6040: Advanced Studio II have been revised to include technical axonometric and wall section drawings. This condition was satisfied in the two-year and five-year Interim Program Report.

A.7 Use of Precedents

2014 Team Assessment: No evidence of the ability to examine and comprehend the fundamental principles of precedents was found in low pass work across the curriculum.

This SPC is no longer specifically required under the 2020 Conditions; therefore, the program decided to include it within the curriculum in elective or other required courses that do not fulfill a Student Criteria or Program Criteria.

A.8 Ordering System Skills

2014 Team Assessment: No evidence of an understanding of the fundamentals of natural ordering systems (e.g., ordering systems in materials such as wood, metal, concrete etc.) was found in ARCH 6470 Architecture, Media and Modeling I and ARCH 6474 Architecture, Media



and Modeling III. Limited evidence of an understanding of the fundamentals of formal ordering systems was found.

This SPC is no longer specifically required under the 2020 Conditions; therefore, the program decided to include it within the curriculum in elective or other required courses that do not fulfill a Student Criteria or Program Criteria.

B.3 Sustainability

2014 Team Assessment: Evidence was not found in the course work for ARCH 3231 Environmental Systems 1. There was one assignment dedicated to sustainability in which students demonstrated an understanding of sustainability principles as outlined in the criterion, but an ability to apply these principles is not evident.

This condition has been met by revisions to the professional degree curriculum including a new required course, ARCH 7360: Design and Climate Change and adjustments to ARCH 6040: Advanced Studio II to require integration of ecological and sustainable issues into the studio curriculum. This condition was satisfied in the two-year and five-year Interim Program Report.

Causes of Concern in most recent VTR
Architectural Education and the Academic Community

2014 Team Assessment: The School of Architecture is involved in the intellectual, governance and social activities of the Institute; however, engagement with peer professional programs or institutional initiatives was not strongly evidenced. Georgia Tech's strategic vision, termed "Designing the Future," may provide a unique leadership opportunity for the School of Architecture within the Institute. (1.1.3.A)

This condition has been met by increased engagement across the Institute via increased funded studios and workshops through industry, civic, and cross-disciplinary partnerships; increased number of cross-listed courses; and a robust event series that crosses disciplinary boundaries. This condition was satisfied in the two- year and five-year Interim Program Report.

Program Changes

Further, if the Accreditation Conditions have changed since the previous visit, the APR must include a brief description of changes made to the program as a result of changes in the Conditions.

This section is limited to 5 pages, total.

Program Response:

In response to the changes in the Conditions for Accreditation, the School made the following changes to the curriculum:

- Move from Construction Tech II, Structures II, Environmental Systems II to an integrated course sequence named ARCH 7101, Integrated Building Systems I, ARCH 7102, Integrated Building Systems II, ARCH 7103 Integrated Building Systems III:
 - This update recognizes changes to architectural, engineering and construction knowledge base and delivery methods.
 - The Integrated Building Systems pedagogical model offers a platform to explore the relationship between emergent digital collaboration technologies and improved workflow.
- 2. Create required ARCH 7360: Design and Climate Change course:
 - This course positions design as an essential component of research that explores the socio-cultural and eco-political dimensions of climate change.
 - This course draws from the College and the Institute, introducing topics of energy, climate, and sustainability research to our students.
- 3. Update Theory I and II course frameworks:

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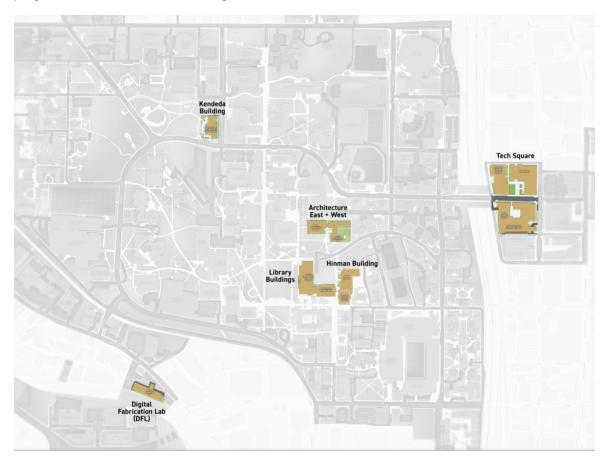
- Theory I was redesigned as a foundation course to offer effective preparation for students in Theory II.
- Theory II courses are selected from a menu of catalog-approved electives with specific theory content.
- The reorganization of content recognizes that significant aspects of theory curricula must respond to changing contemporary positions, offering students a common intellectual basis.
- 4. ARCH 6040: Advanced Studio II (Portman Prize studio) was re-envisioned to explicitly address climate change and social equity. This studio is generously supported by the Portman Foundation which allows the SoA to bring in an outside expert as our Portman Prize Studio Critic who collaborates with the faculty to set the agenda for the studio and provide invaluable expertise, resources, and connections, giving students an immersive educational experience in the studio topic. Recent topics included material resources and circular economy, mass timber construction and carbon sequestration, regenerative design and material reuse, and design for underserved communities in flood zones along the Mississippi River.
- To address more opportunities for 4.2.3 Optional Studies, the two requisite Practice of Architecture courses were reduced to one required course, plus an elective from a preapproved list.



NARRATIVE TEMPLATE

1—Context and Mission

To help the NAAB and the visiting team understand the specific circumstances of the school, the program must describe the following:



The institutional context and geographic setting (public or private, urban or rural, size, etc.), and how the program's mission and culture influence its architecture pedagogy and impact its development. Programs that exist within a larger educational institution must also describe the mission of the college or university and how that shapes or influences the program.

Program must specify their delivery format (virtual/on-campus).

Program Response:

Institutional context:

The Georgia Institute of Technology, commonly referred to as Georgia Tech (GT), is a public Research 1 university and institute of technology in Atlanta, Georgia. The institution was founded in 1885 as the Georgia School of Technology. During its first fifty years, Georgia Tech grew from a narrowly focused trade school to a regionally recognized technological university. In 1948, the name changed to the Georgia Institute of Technology to reflect a growing focus on advanced technological and scientific research. The quality of the Georgia Tech educational experience is reflected in two important ways: consistently strong rankings by national publications and a prestigious, highly regarded curriculum with a technological focus.



GT is a unit of the twenty-six-member University System of Georgia (USG). The USG is governed by the USG Board of Regents (BOR). Georgia Tech is one of four research institutions in the system and receives almost \$2 billion in funding to support research, discovery, and innovation.

The Institution has many nationally recognized academic programs, top-ranked by peers and publications alike. As a leading technological university and member of the Association of American Universities (AAU), Georgia Tech has more than 100 centers focused on interdisciplinary research that consistently contribute vital research and innovation to American government, industry, and business.

GT has six colleges and thirty schools focusing on Business, Computing, Design, Engineering, Liberal Arts, and Sciences. The Institute is an innovative intellectual environment with approximately 1,200 instructional faculty, 2,300 research faculty, and over 44,000 undergraduate and graduate students. Georgia Tech confers over 9,000 degrees annually and serves close to 170,000 alumni. The total staff workforce is approximately 4,300 and the annual budget is more than \$2 billion.

In addition to the midtown Atlanta campus and expanding research and entrepreneurial centers at Tech Square and Science Square (now under construction), Georgia Tech has off-campus instructional sites in Metz, France (GT Lorraine) and Shenzhen, China (GT Shenzhen).

Located in the state capital of Atlanta, Georgia Tech beneficially leverages its location within a city bursting with culture and creativity with a rich past and diverse community. Atlanta is known as the cradle of the civil rights movement, as well as the "City in the Forest." With 48% of the city covered in trees, Atlanta offers the largest canopy in a major metropolitan area. This, paired with notable historic neighborhoods, innovative new structures, and expansive public parks makes Atlanta a regular feature in the entertainment industry. A range of major companies also call Atlanta home, from Coco-Cola to Delta as well as new hubs for Google and Microsoft. In 2021, U.S. News & World Report named Atlanta one of the best places to live in the U.S.

Georgia Tech's Vision 2030: Inclusive Innovation for a Better Future

Over the next decade, GT will be an example of inclusive innovation, a leading technological, research university relentlessly committed to serving the public good, breaking new ground in addressing the biggest local, national, and global challenges of our time, making technology broadly accessible, and developing exceptional leaders from all backgrounds ready to produce novel ideas and create solutions with real human impact.

School of Architecture (SoA) is uniquely positioned

The SoA will deliver on this vision by building an exceptional and diverse community of learning, discovery, and creation in an inclusive and collaborative environment focused on innovation and access. The SoA will develop healthy and vibrant learning environments that support holistic learning and personal growth, leading educational innovation and developing a global learning platform of unmatched impact and scale to support learners throughout their life journeys. The SoA will challenge itself to push the boundaries of research while focusing on the most consequential questions and problems faced by humanity. The SoA will act as a creative engine that will position our city and our state as examples of inclusive entrepreneurship and innovation.

Georgia Tech's Mission

The Georgia Institute of Technology is a public research university established by the state of Georgia in Atlanta in 1885 and committed to developing leaders who advance technology and improve the human condition.

Architecture at Georgia Tech

Architecture was established as a discipline of study at GT in 1908 at the request of a civil

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engineering student who recruited fellow students for an entering class of twenty. In 1975, the College of Architecture was established and grew to be comprised of the following disciplines (in order of establishment) Architecture, Industrial Design, City & Regional Planning, Building Construction, and Music. In 1982, the establishment of the Doctor of Philosophy in Architecture degree and the multi-disciplinary Doctoral Program reflected the increasing complexity of design and studies in the built environment as well as the growing emphasis upon leading-edge research at Georgia Tech.

In 2010, the academic programs in the College were reorganized into vertically integrated School-level units, comparable to all other academic units in the Institute. With this reorganization, each school was given budgetary and operational autonomy and became responsible for its own discipline-specific doctoral-level degrees and cross-disciplinary research programs. In 2016, the College was renamed the College of Design to better reflect the diverse disciplines of the five Schools within the college.

The STEM-designated Master of Architecture (M. Arch) program is delivered through on-campus instruction. During the COVID-19 pandemic, temporary measures for remote learning were implemented. Since Fall 2021, all courses have been delivered on-campus and in-person.

The program's role in and relationship to its academic context and university community, including how the program benefits—and benefits from—its institutional setting and how the program as a unit and/or its individual faculty members participate in university-wide initiatives and the university's academic plan. Also describe how the program, as a unit, develops multidisciplinary relationships and leverages unique opportunities in the institution and the community.

Program Response:

The SoA is the largest school within the College of Design and encompasses five distinct degree programs, a reflection of the school's multiple missions in undergraduate education, professional education, and advanced studies & research.

- The undergraduate Bachelor of Science in Architecture degree contributes to the general education mission of Georgia Tech through studio-based design education that provides grounding in liberal and technological knowledge while emphasizing creativity and the ability to solve problems related to the built and inhabited environment.
- The STEM-designated Master of Architecture program offers an accredited professional degree at the graduate level preparing students to achieve licensure as a practicing architect. The SoA offers a two-year degree for students with a pre-professional degree and a 3.5-year degree for students with degrees in other disciplines. The Master of Architecture professional degree program received an eight-year continuing accreditation in 2014.
- The STEM-designated Master of Science in Architecture is a post-professional program that provides students holding professional degrees in architecture (B. Arch or M. Arch) or with equivalent degrees in allied fields of design or engineering with research-based knowledge that is applicable to the advancement of professional practice. This program has concentrations in Computation, High Performance Building, and Design + Health. These concentrations mirror fields of study in the Ph.D. program: Design Computation, Building Design Technology, Architecture/Culture/Behavior, History/Theory/Criticism, Urbanism, and Evidence-based Design each with an associated research lab and substantial funding base.
- The STEM-designated Master of Science in Urban Design program addresses national and global challenges related to urban growth and is oriented to those who wish to expand upon their previous professional education and professional experience to enter

- urban design practices either in private firms or public agencies. This program has close ties to the School of City and Regional Planning through shared courses and faculty.
- The Doctor of Philosophy in Architecture program explores topics in design, technology, and culture, leveraging interdisciplinary research across the Institute and preparing scholars for cross-cutting inquiries and focused investigations that breed key contributions across a rich array of intellectual fields.

The SoA faculty participates in Institute, College, and School-level committees including, but not limited to, the following:

Institute

- President's Strategic Plan Steering Committee
- Institute Assessment Committee
- Advisory Board, Kendeda Building for Innovative Sustainable Design
- Undergraduate and Graduate Curriculum Committees
- International Study Committee
- Student Honor Committee
- Faculty Senate

College

- Curriculum Committee
- Reappointment, Promotion, and Tenure Committee
- Diversity and Inclusion Council
- Dean's Advisory Board

School

- Reappointment, Promotion, and Tenure Committee
- Equity, Justice, and Inclusion Committee
- Curricular Task Forces
- Faculty Advisory Committee

Over the past seven years, the SoA had significant changes that improved the quality, visibility, and reputation of the program. Recent opportunities augment the SoA as a nexus of critical connections with other disciplines in the Institute. The SoA continues to leverage Institute expertise and resources to expand the capacity of the program.

Highlights from the past four years include:

2018

- The <u>Digital Building Lab</u> (DBL) started a funded research program with Georgia Tech facilities utilizing data from the Georgia Tech campus to conduct research on data-driven facilities management and design.
- The school leadership worked with the Ph.D. Director to identify faculty to increase engagement with the eleven Georgia Tech Interdisciplinary Research Institutes (IRIs).
- Built an entrepreneurship program to leverage relationships with Scheller College of Business and the existing Program for Engineering Entrepreneurship.
- Leveraged DBL seed grant funds to incentivize collaborative research projects with other schools across campus including Computing, Mechanical Engineering, Human-Computer Interaction, and Civil and Environmental Engineering.

2019

The SoA hosted the annual <u>International Symposium on Simulation for Architecture and Urban Design</u> (SimAUD) in the spring that brought together faculty and students from across the Institute together with participants from schools around the world.

- The DBL hosted an Industry Day meeting in the spring that connected faculty and students from around the Institute with professionals and industry thought leaders.
- The Shape Computation Lab, led by Professor Thanos Economou, hosted a major international conference at the school in the spring to debut significant developments in their research on the Shape Machine. Leading researchers in the area attended alongside faculty and students from other schools across the Institute.
- Professor Ellen Dunham-Jones, the M.S.U.D. director, secured a significant grant to
 create a podcast series around the theme of <u>Re-Designing Cities</u>. These podcasts were
 the result of six public panel discussions, moderated by Dunham-Jones, on major themes
 facing cities with leading experts from around the world.
- SoA PhD student Tyler Pilet led an interdisciplinary team of students from the SoA, School of Building Construction, and the School of Civil and Environmental Engineering that won first place in the category for net-zero energy, urban single-family home at the 2019 Solar Decathlon Design Challenge Weekend, held at the National Renewable Energy Laboratory in Golden, Colorado.

2020

- The SoA successfully completed a six-month strategic visioning process with an outside consultant resulting in a written document outlining the future direction of the school.
 Although this process focused primarily on graduate recruiting, the results formed the foundation for a new strategic vision for the entire school.
- The SoA High Performance Building Lab (HPBL), directed by Assistant Professor Tarek Rakha, collaborated with faculty from the College of Computing on a research grant from the Department of Energy (DoE), "Aerial Intelligence for Retrofit Building Energy Modeling."
- Ph.D. Director Sonit Bafna collaborated with Professor Ruth Kanfer in the School of Psychology on several projects including a study on the organizational behavior of the new Office of Information Technology workspaces in the CODA building.
- Continued enrolling students from other schools including the College of Computing and the School of Civil and Environmental Engineering.
- Ph.D. faculty were more active in serving on dissertation committees in other schools.
- The SoA made two courtesy appointments in 2019-20 to professors in other schools, Professor Ian Bogost from the School of Literature, Media, Communications and Professor Ruth Kanfer from the School of Psychology.

2021

- Efforts to make courtesy appointments continued with the appointment of Jeanette Yen from the School of Biological Sciences.
- Professor Thanos Economou secured a courtesy appointment in the School of Interactive Computing (IC) and has begun attracting more IC students into his courses.
- The Re-Designing Cities program continued through 2020-21 and drew larger crowds from around the country (and world) through online platforms. Program Director Ellen Dunham-Jones continued to be very visible through promotion of her book and as an expert in interviews in popular media. A highlight was her appearance on the PBS Newshour in a report on energy independent communities as part of a series entitled "Covering Climate Now." Dunham-Jones also received a 2021 Great Places Award for her book, Case Studies in Retrofitting Suburbia, from the Environmental Design Research Association (EDRA).
- Assistant Professor Vernelle A.A. Noel (Ventulett NEXT Fellow 2018-2020) was offered
 and accepted a tenure-track joint appointment with the SoA and School of Interactive
 Computing; recent research support includes the <u>Mozilla Creative Media Award for</u>
 <u>"Artificial Intelligence + Carnival + Creativity,"</u> alongside a Graham Foundation Grant.

2022

- Led by Assistant Professor Tarek Rakha, SoA students were the <u>Residential Grand</u>
 <u>Winner of the DoE Solar Decathlon</u> for their design to retrofit a 102-year-old house in
 Atlanta's historic English Avenue neighborhood.
- SoA students and faculty in the <u>Design and Research Studio</u> taught by MASS Design Group's Michael Murphy, the Thomas W. Ventulett III Distinguished Chair in Architectural Design, and Jade Yang traveled to Rwanda to study how architecture can simultaneously protect the environment and elevate communities.
- SoA students working with Assistant Professor Danielle Willkens participated in the
 ACCelerate Creativity + Innovation Festival at the Smithsonian's National Museum of
 American History. Their exhibit, "Walking in the Footsteps of History" showcased ongoing
 research and documentation in Selma, Alabama, and compromised sites related to the
 civil rights movement. The team won the People's Choice Award for Advancing Public
 Knowledge.
- Continuing a rich tradition of success, a team of five students were one of four teams selected as finalists in the <u>ULI Gerald D. Hines Student Urban Design Competition</u>.
- Ph.D. student Tzu-Chieh Kurt Hong won the <u>2022 Architectural Research Center</u> Consortium (ARCC) Dissertation Award

Since the last NAAB accreditation visit in 2014, the School of Architecture has seen the following changes in leadership:

- Interim Chair Richard Dagenhart (August 2014 June 2015)
- School Chair, Scott Marble (June 2015 June 2022)
- School Chair, Ingeborg Rocker (September 2022 present)

The ways in which the program encourages students and faculty to learn both inside and outside the classroom through individual and collective opportunities (e.g., field trips, participation in professional societies and organizations, honor societies, and other program-specific or campuswide and community-wide activities).

Program Response:

The SoA encourages students and faculty to explore the potential of architecture through connections between art, culture, and technology. Within the Institute there are myriad opportunities for interdisciplinary education, skill and professional development, service opportunities, study abroad experiences, sports, and other creative outlets. Beyond the Institute, the SoA community benefits from the vibrant resources, neighborhoods, and events of Atlanta, from concerts and non-profit organizations to the world-class museums such as the High Museum of Art, the Museum of Design Atlanta (MODA), and the National Center for Human and Civil Rights.

Serve-Learn-Sustain

Serve-Learn-Sustain is an institutional effort to equip Georgia Tech students to learn and serve around the theme "creating sustainable communities" through engagement with real world problems facing actual communities. The initiative was developed as Tech's Quality Enhancement Plan (QEP), as a key component to its reaffirmation of SACSCOC accreditation for the next ten years.

The School of Architecture engagement with the Serve-Learn-Sustain Initiative:

 Michael Gamble (2015-16), Ellen Dunham-Jones (2016-present), and Nitra Wisdom (2015 – present) from the SoA are College of Design liaisons to the Institute for the SLS program.



- Nitra Wisdom taught GT1000 Sustainable Communities, introducing first-year students from all majors to the basic foundations of sustainable communities.
- Danielle Willkens (2022-present) teaches ARCH 4823/6160: Race, Space, and Architecture in the United States.
- Fred Pearsall (2020-present) teaches Architecture & Ecology.

Center for Teaching and Learning

The Center for Teaching and Learning promotes and supports an on-campus and online instructional community where excellence in teaching and learning is valued and where educators engage in evidence-based state-of-the-art practices that foster opportunities in which diverse students and instructors can thrive. Each year, the Center for Teaching and Learning (CTL) hosts faculty groups that meet regularly with a focused goal or theme in mind. These groups include our theme-based learning communities, teaching fellow cohorts, learning technology partnerships, badging program, and book club. In these extended groups, faculty participants can investigate specific topics, create resources, learn from their colleagues, and start new projects. CTL specialists provide teaching and learning expertise and work with these groups to guide them toward their goals.

Students

Students who study architecture at Georgia Tech tend to share an awareness of the role that technology is playing in the transformation of the discipline. They grasp the role that innovation must play in meeting the challenges at hand. Sustainability, social responsibility, and an entrepreneurial spirit are crucial and complementary values out of which architects must forge their vision as agents of change. Students are involved in helping set the direction for the SoA and for the future profession through participation in student governance and professional organizations, and they are recognized at our annual awards day each spring for their leadership and performance.

The combination of cohorts across the five-degree programs yields a student body with an extraordinary range of talents, criticality, imagination, inventiveness, and sheer problem-solving ability. Some of the various ways in which the school promotes student engagement include student organizations, Student Ambassadors and Student Advisory Council are described in more detail in Section 2.5.

Summary Statement of 1 - Context and Mission

This paragraph will be included in the VTR; limit to maximum 250 words.

Program Response:

Georgia Tech is a research-driven community that fosters collaborations between undergraduate and graduate programs within the school, as well as those across the Institute. Field studies, locally and globally, are instrumental to the program's identify, cultivating service-learning opportunities as well as deep community connections that ground the practice of architecture in participatory action.

The School of Architecture is driven by the following values: Design and the synthesis of creativity with science, culture, and technology; Community, Diversity and Inclusion with a respect for, and curiosity about, differences conveyed through the culture of our school and what we instill in our students; Connection to establish meaningful relationships between people, disciplines, and the ideas in pursuit of new opportunities; Entrepreneurship and the ability to see gaps within existing processes and solutions and to create novel and innovative alternatives; Technology and the practical application of knowledge to expand creativity; Learning & Knowledge as the driver for the cyclical process of acquiring skills or knowledge to learn more.

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The SoA mission is to prepare students with an entrepreneurial spirit who want to combine design, research, and technology to affect the built environment. The SoA embraces inclusion and if defined by the diversity of our students who are actively engaged in shaping their education, the profession, and the world around them. The SoA connects our students to the Institute, Atlanta, and the global architectural community by preparing them with the vision, skills, and agility to leverage the opportunities in the ever-changing future.

2—Shared Values of the Discipline and Profession



The program must report on how it responds to the following values, all of which affect the education and development of architects. The response to each value must also identify how the program will continue to address these values as part of its long-range planning. These values are foundational, not exhaustive.

The shared values articulated below extend across all five programs in the SoA. Therefore, the shared values explore the SoA, not just the professional M. Arch program. Many of the academic, research, and extracurricular activities discussed in this section are intended for all students and exemplify ways in which students from different programs work together. One of the SoA's values is to provide opportunities to students from each of the programs to work with and learn from each other. Examples of this might be an undergraduate student working in a research lab or a graduate student serving as a teaching assistant in an undergraduate class. Students in the Master of Architecture program benefit both directly and indirectly from this integration with other programs in the SoA.

2.1 Design: Architects design better, safer, more equitable, resilient, and sustainable built environments. Design thinking and integrated design solutions are hallmarks of architecture education, the discipline, and the profession.

Program Response:

The SoA seeks to instill the value of design and design thinking throughout each of the programs. The Bachelor of Science in Architecture program is a pre-professional degree that establishes a foundation for students seeking a career in architecture or another allied discipline. This program also prepares students for graduate studies. The Master of Architecture program is our NAAB accredited professional program. The post-professional Master of Science in Architecture and Master of Science in Urban Design programs are more specialized and give students a specialized knowledge base and skills to either practice or to pursue a PhD degree. The Ph.D. in Architecture is research based and prepares students for a career in research or academia.

While design culture is endemic within any architecture school, the SoA is distinguished by the strong culture of research that is present in each of the six colleges the thirty schools across campus and how this conditions our approach to design throughout our curriculum. At Georgia Tech, as at many universities, design is discussed as much in engineering, science, computing, and business as it is in traditional design schools. In the SoA, there is an ongoing and lively debate about the relationship between design and research that overlays decisions about how to teach design, in which courses, and even the fundamental question of how to define design. Faculty positions within this debate range from understanding research and design as inseparable (generally design faculty) to declaring that research is distinct from design (generally research faculty). This range of positions creates a continual discussion about how the school approaches design, but the common ground is that design is informed by research.



OUTCOMES SOUGHT

The SoA seeks to maintain a strong culture of research-based design that acknowledges the various and unique contributions of each program. The SoA teaches students that design thinking should be present at all scales of the built environment from buildings to cities.

OUTCOME ASSESSMENT

Evidence of the SoA's success in achieving a strong design culture is assessed at the mid-year Portfolio Competition and Celebration, and through the end-of-year portfolios submissions for all graduating students from the B.S. Architecture, M. Arch, and M.S. Urban Design programs. In both instances, faculty use specific rubrics to evaluate portfolios to assure consistent assessment across all cohorts.

FUTURE PLANNING

The SoA currently has an assessment rubric that is used by faculty to assess the student portfolios. The SoA will refine this rubric to more concisely reflect the specific aspects of design that the school values. Additionally, the SoA will develop a way to bring the M.S. Architecture and Ph.D. in Architecture programs into this process to allow a comprehensive overview of how design is reflected across the school.

2.2 Environmental Stewardship and Professional Responsibility: Architects are responsible for the impact of their work on the natural world and on public health, safety, and welfare. As professionals and designers of the built environment, we embrace these responsibilities and act ethically to accomplish them.

Program Response:

The SoA places climate change, sustainability, and environmental stewardship as part of its core mission, especially in the M. Arch program. Additionally, health, safety, and welfare are approached as not only compliance with building codes but also understood through healthy materials and the design of spaces that support health and wellness, including issues such as natural light and air quality. Through recent curricular changes to existing courses and the introduction of new courses along with other extracurricular initiatives, these issues are now embedded into the academic life of the SoA to build a strong foundation of knowledge and understanding of architecture's role and responsibility relative to environmental stewardship and the well-being of the general public. In our technical institute, students receive a strong background in the latest tools and techniques to analyze and design high performing buildings in our core technology curriculum and specialized electives. The SoA also provides instruction on broader social, political, and economic factors that surround climate change to assure that students have a holistic understanding and keen awareness of how they can proactively position their work.

The SoA prepares students for future career opportunities around sustainability that are rapidly emerging. One notable example came from the M.S. Architecture program and High Performance Building Lab (HPBL) when two recent graduates founded a start-up based on technology, they developed to allow early design energy and environmental modeling that can parallel early-stage design iteration. Their company, cove tool, evolved into an impactful software company whose tools are being used by architecture firms around the world. Additionally, both undergraduate and graduate students benefit from cove tool since it is actively employed in the Environmental Systems and Integrated Building Systems courses.

While much of the core curriculum in the SoA touches on issues around environmental stewardship, health, safety, and welfare, the SoA offers electives each semester that go deeper into more specific topics and in 2018 re-envisioned the flagship, comprehensive M. Arch studio – The Portman Prize Studio – to explicitly address climate change and social equity. This studio is generously supported by the Portman Foundation allowing the SoA to bring in an outside expert



as our Portman Prize Studio Critic who collaborates with faculty to set the agenda for the studio and to provide invaluable expertise, resources, and connections to give our students an immersive educational experience in the studio topic. Recent topics included material resources and circular economy, mass timber construction and carbon sequestration, regenerative design and material reuse, and design for underserved communities in flood zones along the Mississippi River. This course prepares students with an understanding of traditional and contemporary issues around sustainability and how this is systemically connected to health, safety, and welfare.

Another recent curricular modification to the M. Arch program was the introduction of a new required course in 2020, ARCH 7360: Design and Climate Change, where students are introduced to a broad range of case study topics through lectures and presentations from outside experts. As a final deliverable, the students conduct interviews with these guests and other experts and produce podcasts, making these topics and dialogues accessible to other students, professionals, and the general public thereby enhancing the SoA's dedication to multimodal design communication.

OUTCOMES SOUGHT

The SoA seeks to provide all students with an awareness and broad understanding of the impact of buildings and cities on the natural environment. The school provides students with the technical skills to do basic energy analysis and modeling along with an understanding of the systemic relationships between material sourcing, supply chains, production processes, construction methods, and labor forces in the design and construction industry.

OUTCOME ASSESSMENT

Evidence of the school's success in embedding an understanding of the various aspects of environmental stewardship are assessed at the mid-year Portfolio Competition/Celebration and the end-of-year portfolios submissions for all graduating students from the B.S. Architecture, M. Arch, and M.S. Urban Design programs. In both instances, faculty use specific rubric to evaluate the portfolios to assure consistent assessment across all students.

FUTURE PLANNING

The SoA will continue to increase the number of courses across the curriculum that address environmental stewardship. The school will also make the student-created podcasts from the ARCH 7360: Design and Climate Change course available on our website as a resource for all students, faculty, and the general public. We will also review our professional practice curriculum and utilize the guidance provided by the AIA 2030 Commitment and other industry resources.

2.3 Equity, Diversity, and Inclusion: Architects commit to equity and inclusion in the environments we design, the policies we adopt, the words we speak, the actions we take, and the respectful learning, teaching, and working environments we create. Architects seek fairness, diversity, and social justice in the profession and in society and support a range of pathways for students seeking access to an architecture education.

How we are responding to the profession...add a few sentences responding to Michelle.

Program Response:

Reducing Student Debt

Reducing Student Debt is another school priority as part of the SoA action plan. Students in the SoA receive financial support in several ways unique to their program. Undergraduate students benefit from the <u>HOPE Scholarship</u>, a merit-based tuition assistance award available to Georgia residents who graduate from high school with a 3.0 grade point average.

SoA alumni who own or lead local firms also provide firm scholarships for undergraduate students that help with tuition and living expenses. The number varies each year and averages five to



seven awards over the past seven years. The SoA also offers work-study positions to students each year as the budget allows.

Master's and Ph.D. students are supported by graduate teaching assistantships (GTAs), graduate research assistantships (GRAs), endowments, firm fellowships, and work-study positions. The primary source of financial support are GTAs and GRAs, 30 per year, which provide a tuition waiver and stipend for living expenses. Except for work-study positions, all financial support is awarded upon admission and is one of our primary recruiting tools. Previously, students were awarded full GTA and GRA positions that included both semesters and generally covered the full duration of their program. The SoA switched this approach in 2017 and began to divide these positions by semester, when possible, to spread the awards among more students, allowing us to nearly double the number of students who received financial support.

The SoA has four full tuition endowed fellowships for M. Arch students and an average of seven to ten annual firm fellowships that vary from \$5,000 - \$10,000 per year. In 2021, the SoA secured a firm fellowship dedicated to underrepresented minority students that was first awarded in 2022 and the SoA is working to use this example to secure other similar fellowships. While the endowments are secure, the firm fellowships are contingent upon firms renewing their commitment every two to three years.

Reducing student debt has been a priority for the SoA for several years. Fundraising resulted in increased firm fellowships, but these are not stable. Increased research funds primarily benefit Ph.D. students, and the Institute limits the number of GTA and GRA positions for each college, proportional to overall doctoral student enrollment in the colleges. While we are not limited to awarding GTA/GRA to doctoral students, the distribution to the colleges based on doctoral programs impacts colleges with much higher master's student enrollments. The Institute has recently launched a new capital campaign and increasing the SoA's ability to financially support students will continue to be the top priority.

Recruitment, Mentorship, & Diverse Career Paths

Recruitment of undergraduate students at Georgia Tech is primarily managed at the Institute level with some support by the College of Design and SoA. Graduate recruiting is managed at the school level and the SoA has a recruitment process that begins in September with website updates, messages from the Chair, and invitations to Fall Open Houses. The cycle continues through our March on-campus Open House for all accepted applicants. In addition, the SoA holds several online Open Houses and virtual campus tours for international applicants and those unable to visit campus in person. Recruiting efforts include promoting and participating in the Georgia Tech Focus Program described above and in 2021 the SoA initiated targeted recruiting from Historically Black Colleges and Universities (HBCU's) in Atlanta and the Southeast region.

A key part of the recruiting plan is the involvement of 30+ Graduate Student Ambassadors who are available to answer questions from applicants, give impromptu campus tours, and provide direct student-to-student guidance and support. Accepted applicants connect with a Student Ambassador who helps them through the decision process. Long-term friendships are often initiated through these connections.

Once at the SoA, M. Arch students are provided with many opportunities, beyond their classes, to learn about the profession of architecture in addition to being exposed to careers related to architecture. Our M.S. and Ph.D. programs, located in the same building as the M. Arch studios, expose students to research opportunities and the day-to-day life as a researcher. Architecture students also can explore the other disciplines within the College of Design through electives, lectures, and other events. There is also a dual degree program between the M. Arch and Master of City and Regional Planning. The SoA lecture and events program also bring in people from a range of disciplines including landscape architecture, engineering, social sciences, art history where students begin to understand how architecture and design thinking can provide a strong



foundation for many career paths. For those students who are focused exclusively on architecture as a career, the SoA provides extra-curricular support and guidance including resume and portfolio reviews, mock interviews with outside professionals (organized by our student organizations), and the annual Career Fair that includes over sixty firms of diverse sizes and types.

Respectful and Inclusive Working and Teaching Environment

Georgia Tech continually strives for a working, teaching, and learning environment of mutual respect, acknowledgement, and responsibility between faculty, staff, and students. The Institute maintains a <u>Code of Conduct</u> document and <u>Student-Faculty Expectations</u> are outlined in the Institute Catalog and are updated yearly. Additionally, the SoA website has a section that outlines the regularly assessed approach to <u>Studio Culture</u>.

OUTCOMES SOUGHT

The SoA seeks to cultivate and maintain a culture of respect, inclusion, and accountability among its faculty, students, and staff. The SoA actively seeks to increase underrepresented and BIPOC student enrollment and faculty representation through both full-time and part-time positions. The SoA is actively exploring ways to increase financial support for students in all SoA programs.

OUTCOME ASSESSMENT

Assessment for all outcomes related to equity, diversity, and inclusion will be done as part of the charge of the standing EJI Committee in the SoA. The <u>action plan</u> developed by this committee includes more specific details about goals and assessment.

FUTURE PLANNING

Refer to the SoA Equity, Justice, Inclusion action plan.

2.4 Knowledge and Innovation: Architects create and disseminate knowledge focused on design and the built environment in response to ever-changing conditions. New knowledge advances architecture as a cultural force, drives innovation, and prompts the continuous improvement of the discipline.

Program Response:

Georgia Tech is a Carnegie R1 institution (a doctoral university with very high research activity) and has a long legacy of new knowledge creation and innovation primarily in engineering, computing, and the sciences. There is a deep culture of research on campus that impacts each of the six colleges and thirty schools in unique ways. This is most visible in the College of Design and School of Architecture through our research labs that have international reputations for being at the forefront of new technology development in the architecture, engineering, and construction (AEC) industry.

The SoA has five legacy labs that have been active for several decades: the Digital Building Lab (DBL), Digital Fabrication Lab (DFL), High Performance Building Lab (HPBL), SimTigrate Lab, and the Shape Computation Lab (SCL). Each was founded and directed by research faculty who, over the course of their careers, established themselves as pioneers in their respective fields, and solidified Georgia Tech as one the top AEC research Institutes in the world. Three of these labs are in transition with new directors or are going through a search for a new director and will build on the foundation laid by the founding directors.

• The <u>Digital Building Lab</u> (DBL) was founded in 2009 by Professor Emeritus Chuck Eastman who was a leading researcher in Computer Aided Design and one of the originators of Building Information Modeling (BIM). In addition to its core strengths in BIM standards, data management, and interoperability, research in the DBL has expanded to include collaborative web systems, big data, robotics, and material research. The DBL

- connects Georgia Tech researchers to AEC professionals through lectures, workshops, symposia, and a membership program that serves as a funding mechanism for the lab. Professor Russell Gentry is the current interim director and there will be a search for a new permanent director in the near future.
- The <u>Digital Fabrication Lab</u> (DFL) was one of the first in the country to be outfitted with industrial CNC equipment for both wood and metal fabrication dedicated to full-scale building prototypes and material testing. The DFL supports both faculty research and research-based studios and seminars. Students from all SoA programs can participate in studios, electives, and research projects over the course of the semester and year. Much of the coursework, equipment, and research in the lab focuses on the automated production and assembly of building systems using information models and CNC equipment. The lab also houses a small structures and materials testing lab, a concrete casting lab, and outdoor areas for installation and testing of mock-ups.
- The <u>High Performance Building Lab</u> (HPBL) was founded in 1997 by Professor Emeritus Godfried Augenbroe who was a distinguished scholar and researcher in building simulation, building physics, and building performance theory. Under the current directorship of Assistant Professor Tarek Rakha, the HPBL focuses on several research areas around built environment performance including building and neighborhood analytics, aerial diagnostics, natural lighting, and living systems. Students within the SoA are exposed to the work of the lab through core required courses and elective courses that draw from the research of the lab. M.S. Architecture and Ph.D. students make up most of the team members in the lab who work on funded research projects. M.S. Architecture students from the HPBL collaborate with M. Arch and M.S. Urban Design students in our ARCH 6049, 6050 Design & Research studios each year.
- The <u>SimTigrate Lab</u> was founded in 2011 by Professor Craig Zimring, an environmental psychologist and expert in evidence-based design and its application to improving health and healthcare. SimTigrate research focuses on how to improve healthcare outcomes by measuring, quantifying, and documenting the impacts of the built environment in the healthcare process. Specific areas of research include design for mild cognitive impairment, infection prevention and safety, lighting in healthcare spaces, and teamwork in primary care. Students from all programs in the SoA can participate in SimTigrate research through elective courses and as research assistants. Professor Zimring retired in 2022 and a search will be conducted in 2023 for a new director.
- The <u>Shape Computation Lab</u> (SCL) was founded by Professor Thanos Economou who is also the current director. Professor Economou is a leading scholar in shape grammar, computational design, and design theory. The SLC conducts research into shape recognition as a new form of computing to calculate and visually represent all possible shapes in CAD parametric models. Current projects in the lab address design automation, visual programming, intelligent CAD systems, and the formal specification of shape and style. Professor Economou and his research students test the work of their lab in both undergraduate and graduate design studios in addition to teaching elective courses on shape grammar.

The SoA also has several new research labs led by younger faculty that include <u>Flourishing Communities Collaborative</u> directed by Associate Professor Julie Kim, <u>Spatial Futures Lab</u> directed by Assistant Professor Keith Kaseman, and the <u>Situated Computation + Design Lab</u> directed by Assistant Professor Vernelle Noel.

Visiting Professorships

In addition to the strong research culture embedded in the school, we also have several visiting professor positions that bring both emerging and established practitioners who have a record of conducting and promoting innovation and research in the architecture profession.

 ARCH 6040, Advanced Studio II (<u>Portman Prize Studio</u>) is our version of an integrated studio taken by all M. Arch students and is led by an invited distinguished practitioner whose work is tied



to issues of equity and climate change. Recent Portman Critics and topics have included Guy Nordenson (housing design for flood-prone communities in the Mississippi Delta), Alan Organschi (carbon positive building processes with mass timber construction and material reuse techniques) and Billie Faircloth (applying circular economy logics through building with on-site materials).

- The <u>Ventulett Distinguished Chair in Architectural Design</u> is a three-year Professor of Practice
 position that engages established practitioners with a record of international leadership and
 excellence in architectural design. Ventulett Chairs teach Design & Research (D&R) studios and
 seminars in the M. Arch program. Recent Ventulett Chairs include Michael Murphy (<u>MASS</u>
 <u>Design Group</u>), Debora Mesa (<u>Ensamble Studio</u>), and Marc Simmons (<u>Front, Inc.</u>)
- The Ventulett NEXT Generation Visiting Fellow program is a two-year full-time Visiting Assistant Professor position that brings young faculty at the beginning of their careers to the school. These Fellows come with a solid foundation for interdisciplinary teaching and research that merges design, technology, and culture. In addition to conducting their own research, often with several student research assistants, they teach design studios and seminars open to all students in the school. There are two NEXT Fellows, with one hired each year to provide one year of overlap that facilitates mentoring between the Fellows.

Design & Research Dissemination

The design and research work produced at the SoA is disseminated through the many books, journal articles, conference presentations and proceedings, and lectures done by our faculty and students. Additionally, the school recently started a publication initiative (ADD PAGE TO WEBSITE AND LINK) that provides another venue for documenting research, creative work, and academic work. Studio reports are also sometimes published to SMARTech, Georgia Tech Library's google-searchable, publicly available, digital archive. The work of the Portman Prize Studio is published annually and includes essays from the Portman Prize Visiting Critic and Portman Jury members, along with the research and design work completed by the students. Faculty are given the opportunity to publish work from other courses and studios through this initiative.

Another venue that produces and disseminates research is our Divergence Symposium organized biannually by the Ph.D. program student organization, ConCave. This symposium invites Ph.D. students from around the world to submit their work to be peer-reviewed, presented at a conference hosted by the SoA, and published in proceedings.

OUTCOMES SOUGHT

The SoA seeks to provide students with an understanding of the value of research and the creation of new knowledge in advancing the profession of architecture. The SoA also seeks to support and provide opportunities for work produced at the school to be disseminated through multiple venues.

OUTCOME ASSESSMENT

Assessment will be based on the amounts and types of funding for our research labs and projects, the number of peer reviewed papers and presentations by faculty and students, and the number of Ph.D. students who matriculate to the doctoral program.

FUTURE PLANNING

While re-establishing and stabilizing our legacy labs, the SoA will also continue to cultivate and support new areas of research around the interest of new faculty.

2.5 Leadership, Collaboration, and Community Engagement: Architects practice design as a collaborative, inclusive, creative, and empathetic enterprise with other disciplines, the communities we serve, and the clients for whom we work.

Program Response:

Empowering students to take a proactive position relative to their education is fundamental to the SoA mission and this is made evident from the beginning of their time at Georgia Tech. Students are encouraged to become collaborators with the faculty, staff, and administration to make the experience of being at Georgia Tech more engaging, exciting, and successful for the entire school community. The SoA provides students with opportunities for leadership, collaboration, and community engagement within the curriculum and through extra-curricular programs.

Within the curriculum, there is a balance between individual and teamwork where students can learn the discipline and responsibility that comes with working independently and the listening and empathy that is required when doing collaborative work. Many courses, both required and elective, are situated in real-world contexts where students can directly engage with the people and places at the core of their designs. Design studios are often built around a particular community or client group that provides a rich context and learning experience for students to understand the dynamics of addressing the needs and constraints of a real project.

Students are actively encouraged to pursue interests and initiatives to supplement their formal coursework. This results in students being very entrepreneurial outside of the classroom and the SoA cultivates this by providing administrative and financial support to several extra-curricular student-led initiatives and organizations. These include:

- Student Advisory Councils (SAC) are elected each year to work closely with the administration to discuss new initiatives and improvements to the school. Representatives from the undergraduate, graduate, and Ph.D. programs meet monthly with the School Chair and Associate Chair and serve as liaisons between their programs and the school leadership. In addition to the administration receiving real-time feedback from students on issues ranging from curricular concerns to printing problems, the SAC also serves to brainstorm and strategize ways to make the school better. Recent examples of initiatives that have originated from these meetings are a new student organization around sustainability, ECO, and a new podcast series, "The Pin-up Podcast" organized and run by students that provides useful information to students in all programs.
- Student Ambassadors are faculty-nominated undergraduate and graduate student representatives who embody the diversity, talent, and enthusiasm of the SoA. The Architecture Ambassadors serve as a direct student-to-student link with prospective students to our programs. They help guide prospective students through the application and admissions process by answering questions about the school and sharing their experiences of being a student at Georgia Tech.

Student Organizations

Georgia Tech's chapter of the **National Organization of Minority Architecture Students (NOMAS)** is the student counterpart of the National Organization of Minority Architects (NOMA). GT-NOMAS strives to build a strong chapter of involved architecture students whose interests include the promotion of diversity – both in the academic and professional environments – and advocates for design excellence, community engagement, and professional development. Members hold several social, educational, philanthropic, and professional networking events on campus and in the community as well as participate in annual student design competitions, both locally and nationally. (Mention competition success)

The American Institute of Architecture Students (AIAS) at Georgia Tech is an independent, nonprofit, student-run organization dedicated to providing unmatched progressive programs, information, and resources on issues critical to architecture. The mission of the AIAS is to promote excellence in architectural education, training, and

practice; to foster an appreciation of architecture and related disciplines; to enrich communities in a spirit of collaboration, and to organize students and combine their efforts to advance the art and science of architecture. GT-AIAS is committed to helping members broaden their horizons within the architectural profession while promoting a healthy studio culture and contributing to a sense of community within the SoA. In spring 2022, the GT-AIAS co-sponsored the South Quad Conference, Waste/land, with Auburn's AIAS chapter. The AIAS also serves as an avenue for students to take on national leadership roles; former GT-AIAS President Colt Brock was elected to serve on the national AIAS Board of Directors as the South Quad Director for 2022-23.

The student chapter of **Equity in Architecture (EQiA)** strives to further integrate the student body by promoting unity and equality between genders within the College of Design at the Georgia Institute of Technology. The goals of the organization are to: increase awareness in the Georgia Tech community of the success, achievements, and history of women in the fields of Architecture, City and Regional Planning, Building Construction, Industrial Design, and Music; promote leadership among women within the College of Design; develop role models and mentors within the College of Design and the greater Atlanta community; establish life-long networking connections between the women in school and professional women in Atlanta area; and help voice the female opinion in the college on curriculum initiatives, faculty searches, and other academic decision-making boards.

The SoA's newest student organizations, **ECO**, is a student-led organization focused on reviving the School of Architecture's learning ecosystem for the betterment of the planet. The organization works to bring awareness of responsible material choices to net-zero studio practices that promote environmental wellness within the design community. ECO is based on the word Ecosystem, which is described as the interconnected relationship between humans and their direct environment. As a design community, ECO asks "How can we connect with each other, our built environment, and the materials we use every day to create an environmentally conscious atmosphere?" ECO aims to improve recycling habits and re-use and re-purpose materials within multiple studios to reduce waste. ECO aims to expand our passion for sustainability to our direct community through interactive events with local schools and sharing models and materials. Through education, awareness, and collaboration, ECO works to foster a carbon-neutral design environment.

<u>ConCave</u> is a student-led, interdisciplinary Ph.D. group in the College of Design. The goal of the group is to build a community revolving around design and research. ConCave ran two very successful, two-day symposia at GT in the Spring of 2020 and 2022, with published proceedings: *Divergence in Architectural Research*. These symposia featured research from PhD students and researchers from around the world whose work was reviewed by a scientific committee through a double-blind peer review process. Each symposium also featured keynote speakers.

Georgia Tech's Rho Chapter of the Tau Sigma Delta National Honor Society in Architecture and Allied Arts was established in 1958 to recognize students who have completed at least half of their degree program and rank in the top 20% of their class. After a period of inactivity, they have been working to reactivate the chapter. Since 2014, they inducted 127 members (82 total in architecture, with 29 in the M. Arch and 53 in the B.S. Architecture program). Through 2019, students were invited and paid their own induction fees (\$45). On average, only five students accepted the invitation per year; in 2020, due to COVID, there were no inductions. In 2021 and 2022, the College paid the induction fees for all students (both architecture and industrial design). It is unclear whether this will continue in the future, but this new approach allowed the SoA to



recognize the top 20% regardless of the students' financial means or interest to pay the fee. Recent inductee numbers:

- o 2021 56 total (27 in architecture; 14 M. Arch students, 13 B.S. students)
- o 2022 38 total (23 in architecture; 11 M. Arch students, 12 B.S. students)

One of the school's flagship community engagement initiatives is the <u>Flourishing Communities Collaborative</u> (FC2). FC2 is an academic lab, committed to community engagement and social outreach, whose vision is to leverage the resources at Georgia Tech for the city of Atlanta by building upon the strengths of its neighborhoods. Established at Georgia Tech in 2017, FC2 is fundamentally rooted in community engagement, social outreach, and education. The lab offers a platform for students to learn alongside faculty and professionals, much like a teaching hospital. Students learn the valuable skill of creative listening that leads to creative thinking and making while bringing the resources at Tech to underserved and under resourced communities.

By offering experiential learning opportunities through coursework with the support of dedicated and committed community partners, FC2 offers students real-world exposure to the practice of Public Interest Technology. Most recently, FC2 was recognized with the 2021 Public Interest Technology-University Network Challenge Grant (\$180K) for FC2's current work, *Building a Sustainable Community through Design and Technology, in Westside Neighborhood-English Avenue*. In 2022, FC2 was again invited via competitive selection to submit for a 2022 Public Interest Technology – University Network Challenge grant (\$180K) for a *Sustainable Mobile Learning Lab for Westside Neighborhood – English Avenue*. Ultimately, the Flourishing Communities Collaborative aims to demonstrate the value of a quantitative, analytical, and computational approach to the social and cultural functions of the built environment.

Each year, graduate students from programs around campus participate in the Urban Land Institute (ULI) Hines Student Competition. The competition challenges students from different disciplines to collaborate on a proposal that simulates real-world, large-scale design, planning, and development projects for a site in North America. Teams at Georgia Tech are composed of students from several programs including M. Arch, M.S. in Architecture, M.S. Urban Design, Master of City and Regional Planning, Master of Real Estate, and Master of Business Administration. Over the past seven years, there have been an average of eight teams composed of five or more students who enter the competition. The teams work with faculty advisors from the represented programs along with professional advisors from architecture, planning and real estate firms around Atlanta. There are approximately 100 teams from around North American that enter the competition each year and since 2016, five Georgia Tech teams have been selected as one of four finalists and seven have received honorable mentions. The ULI Competition is led by Professor and M.S. Urban Design Director Ellen Dunham Jones.

OUTCOMES SOUGHT

The SoA seeks to maintain a culture of student engagement within the school providing them with leadership opportunities within and beyond the curriculum. The SoA aims to have every student experience at least one semester of active engagement with a local community group, either within the curriculum or through extra-curricular activities during their education. As part of these efforts to prepare students for teamwork in their future careers, the SoA maintains a balance of individual and collaborative work in courses across the curriculum.

OUTCOME ASSESSMENT

The SoA will track the number of students who are involved in student organizations, student representative groups, and community engagement activities. The SoA will continue to monitor the balance of individual vs. teamwork in courses.

FUTURE PLANNING

The SoA will continue to track the number of design studios and required courses that utilize individual vs. teamwork to maintain a balance between the two. The SoA will also continue to



support the various student organizations and work to coordinate their efforts with the curriculum and the extracurricular initiatives organized by the school. The SoA will increase efforts to provide students with a meaningful experience of community engagement.

2.6 Lifelong Learning: Architects value educational breadth and depth, including a thorough understanding of the discipline's body of knowledge, histories and theories, and architecture's role in cultural, social, environmental, economic, and built contexts. The practice of architecture demands lifelong learning, which is a shared responsibility between academic and practice settings.

Program Response:

Core to the mission of the SoA is to instill a lifelong curiosity about the social and cultural meaning of the built environment and a passion to be part of improving the future. Students understand architectural and urban design as creative, aesthetic, technical, and research-based pursuits that necessarily cross disciplinary boundaries. The SoA leverages distinct strengths within the undergraduate, graduate, and doctoral programs to provide a unique educational experience for all students. Within the Institute, the SoA engages in interdisciplinary and cross-disciplinary academic and research projects to prepare our students for teamwork. Within the city, the SoA partners with public and private organizations to be part of envisioning and shaping the rapid growth of Atlanta. Within industry, the SoA forms partnerships and alliances to expand resources, the knowledge base of our faculty, and the opportunities for students to be leaders in the future transformation of the profession.

As a profession, architecture is continually evolving in response to changing technologies, construction methods, and building procurement processes, as well as the continual increase in the complexity of buildings and cities. In addition to these logistical issues, the social and cultural currency of architecture ebbs and flows often in response to current events and other external conditions that are unpredictable and outside the control of architects. Architecture continues to resist standardization and other forms of optimization that have made other industries more contained and predictable. This demands that architects embrace the challenges of continual change and the pleasures of lifelong learning.

The SoA creates a foundation for this by teaching core skills, forming connections between design, technology, history, and theory, and instilling a passion for the impact that buildings have on society. The SoA exposes students to seminal and diverse examples of architecture, both historical and contemporary, and provides them with an understanding of the context in which they are situated. Seeing precedent examples first-hand through course field trips and our International Education programs make an even more lasting impression. Providing opportunities to engage with innovative researchers, practitioners, historians, and other thought leaders provides role models and points of inspiration for students. Most importantly, making sure that students get access to the widest range of job opportunities allows them to be strategic in how they start their careers.

As part of our Lecture and Events program, the SoA has several endowed and thematic lectures that occur annually that expose students to some of the most recognized practitioners working today. The Douglas C. Allen Memorial Lecture exposes students to landscape urbanists, most recently Kate Orff, Miyoung Kim, Marcel Wilson, and Walter Hood. The Design Atlanta series is a collaboration with the Museum of Design Atlanta (MODA) and is held at the Woodruff Arts Center. This lecture attracts a large audience from the Atlanta design community exposing students to a broad group of people of professionals. Recent lecturers included Craig Dykers, Michael Murphy, Marion Weiss, and Michael Manfredi. The Academy of Medicine lecture is focused on architecture in the classical tradition and is held at the historic Hentz, Alder & Shutze-designed Academy of Medicine building (1941) in Midtown Atlanta. Attracting a large alumni audience, in addition to faculty from Emory University. Recent lecturers in this series include Heather Hyde-Major, Ingrid Rowland, and Barry Bergdoll.

NiiB

Several SoA research labs host symposia and events that bring leading researchers from national research labs and universities around the world along with industry partners from several sectors including architecture, engineering, construction, software, materials and products, and owner/operators. The DBL hosts an annual conference that showcases the research occurring in the lab while also inviting industry partners to present the work of their companies along with the challenges they face around innovation and technology. This event gives students inside-access to a range of design, construction, and technology companies that often results in future job placement. This supplements the annual Career Fair and Practicum program discussed in more detail in Section 3, PC.1 Career Paths in helping students identify and secure exciting career paths.

The passion for lifelong learning, though, begins with the curriculum and in helping students make connections between courses and studio and in developing a deep curiosity about how architecture fits in society. Students in the SoA gain an understanding of the broad impact of the built environment on society through history, theory, and technology courses that provide an expanded context for what they are learning in design studios. Each semester, students can select from many elective courses on topics that augment the core curriculum.

OUTCOMES SOUGHT

The SoA seeks to provide students with a deep curiosity and passion about the built environment through the core curriculum, elective offering, lectures and events, and international travel that provides the foundation for lifelong learning.

OUTCOME ASSESSMENT

These outcomes will be assessed through the percentage of students who attend lectures and events and the percentage of students who have international experience.

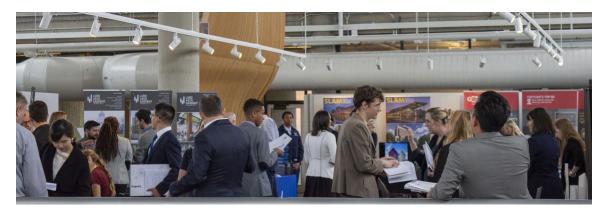
FUTURE PLANNING

The SoA will work to increase student participation in extracurricular activities including lectures, events, student organizations, public service, and others that expose them to people, knowledge, experiences, and places outside the classroom or studio. The SoA will also continue to structure the curriculum to be interrelated and to strengthen connections between courses.



3—Program and Student Criteria

These criteria seek to evaluate the outcomes of architecture programs and student work within their unique institutional, regional, national, international, and professional contexts, while encouraging innovative approaches to architecture education and professional preparation.



PROGRAM & STUDENT CRITERIA MATRIX & ASSESSMENT

The Program and Student Criteria Matrix below shows where each of the PC's and SC's are found in the M. Arch program. "P" indicates the primary source and "s" indicates a secondary source.

PROGRAM AND STUDENT CRITERIA MATRIX

ELECTIVES

Non-Curricular Activity

PROGRAM AND STUDENT CRITERIA MATRIX

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The M. Arch program at Georgia Tech has a systematic and well-reasoned process for assessing the curriculum and making adjustments based on the outcome of the assessment process. As described in section 5.3, the process is a cycle that includes: 1. Setting goals for each PC and SC; 2. Identifying assessment points – the courses, activities, etc., where the goals will be met and assessed; 3. Identifying measures and benchmarks; 4. Collecting the results and aggregating the data to evaluate; 5. Reviewing the data against the goals and benchmarks; and 6. If the benchmarks are not met, developing an improvement plan. The SoA receives support from the Georgia Tech Office of Academic Effectiveness and they work with us each year to submit an annual assessment report to their office that our process outlined below is based on.

Each PC and SC section in this report ends with the assessment process for that particular criterion. The assessment points are outlined and elaborated on in the preceding narrative.

3.1 Program Criteria (PC)

A program must demonstrate how its curriculum, structure, and other experiences address the following criteria.

PC.1 Career Paths—How the program ensures that students understand the paths to becoming licensed as an architect in the United States and the range of available career opportunities that utilize the discipline's skills and knowledge.

Program Response:

Preparing students for a successful and impactful professional career in architecture and related fields is the specific focus of the M. Arch program. Through the professional practice curriculum, engagement with local professionals, and the support provided for job opportunities, students gain a full understanding of the value of a professional architecture degree and how to leverage their skills to pursue a career of their choice. M. Arch students get the added benefit of being exposed to more specialized professional tracks and careers in research due to the proximity and integration with our M.S. and Ph.D. programs.

Career Fair

The annual Career Fair is the primary means of providing our students with exposure to the various types of architecture and design firms and the various available job opportunities. Over 50 firms from throughout the southeast region set up booths at the fair and actively recruit students. The fair takes place in the Spring over the course of a day and students are given time out of class, so they have adequate time to engage with many firms and have individual interviews if needed.

Practicum Program

In addition to the annual Career Fair, the SoA has a Practicum program that provides students with an opportunity to spend the week of Spring Break in an architecture office. The program aims to provide opportunities for students in the undergraduate and graduate programs to experience the working culture of architectural practice through office placement in selected firms around the country. Following an application process, practice placements are arranged at top architecture firms in cities around the U.S. The goal of the program is to add an intense and exciting "career-steering" supplement to the design and research curriculum, and to cultivate an ongoing exchange between firms beyond Atlanta and the School. This program focuses on firms outside the southeast region to give students an introduction to working in other parts of the U.S. Upon completion of the program each year, both students and firms are provided with a survey to assess the quality of the experience and to provide guidance for continuous improvement. From 2017-2022 (with a two year pause for the pandemic), we placed 108 students in 45 firms across the country.

Professional Practice Courses



The SoA has an AXP advisor, Professor of Practice Stuart Romm, AIA, LEED AP, who provides guidance to students around professional practice and licensure. Professor Romm also teaches the ARCH 6315, Practice of Architecture I course with Professor of Practice Ennis Parker who has a joint appointment in the School of Building Construction. This course provides students with a comprehensive introduction to the profession and the numerous career opportunities available within the AEC industry. The SoA also offers two professional elective courses that supplement the core knowledge gained in ARCH 6315. ARCH 8803, Entrepreneurship in Professional Practice taught by Lecturer James Cramer teaches students how to design, start, and operate an architecture firm, and covers topics from creating a strong design culture to maximizing profits. ARCH 6227, Traditions of Architectural Practice taught by Professor and practice scholar George Johnston offers students an understanding of the history of the profession of architecture that contextualizes the current state of practice.

Engagement with Local, National, and International Practices

As part of the SoA's effort to expose students to the multiple career paths in architecture, practitioners from local firms are engaged to teach or co-teach courses, participate in reviews, or present lectures in courses. There are many SoA alumni practicing in Atlanta, and they are always eager and willing to give back to the school. Additionally, student organizations make connections with firms and organize firm visits, career preparation workshops about resumes and interviewing, and panel discussions open to the entire school. Our lecture and events series also brings many practicing architects and practitioners from related disciplines from around the world to the SoA. These lecturers give provide students with direct insight into the many aspects of practice and the myriad career paths that an architectural education can provide

ASSESSMENT (See section 5.3.1 for a full description of the assessment process)

- 1. Goals set goals for each PC & SC
 - a. The SoA provides students with access to firms and job opportunities locally, regionally, and nationally.
 - b. The M. Arch program teaches students to market their skills and knowledge to gain increased career and job opportunities.
 - c. The M. Arch program provides students with exposure to professional practices that represent the full range of career opportunities within the profession of architecture.
 - d. The SoA provides students with the resources to understand the architecture professional context in the U.S., the Architectural Experience Program (AXP) process, and the path to becoming a licensed architect.
- 2. Assessment Points identify the courses, activities, or other points where the assessment will occur
 - a. Primary
 - i. Career Fair & Practicum Program
 - ii. ARCH 6315: Practice of Architecture I
 - b. Secondary
 - i. ARCH 8803, Entrepreneurship in Professional Practice
 - ii. ARCH 6313. Traditions in Architectural Practice
 - iii. SoA Lectures and Events
- 3. **Measures / Benchmarks / Results -** identify assessment measures and benchmarks for each measure. These measures map directly to the goals above.

| Goals | Assessment Measures | Benchmarks | Results |
|-------|---|--------------|-------------------|
| а | Number of firms that attend the Career Fair | 55 each year | AY 2021-22: 61 |

NvB

| а | Number of national firms that the SoA offer students who participate in the practicum program | 30 each year | AY 2021-22: 33 |
|---|--|---------------------------|-------------------|
| b | Number of Career Paths & Opportunities sessions held by the SoA leadership & AXP Advisor | 2 per academic year | AY 2021-22: 1 |
| С | Number of practitioners in architecture and related fields that discuss their practice as part of the SoA lecture & event series | 4 per academic year | AY 2021-22: 3 |
| d | Number of days dedicated to professional licensure and career opportunities in ARCH 6315: Practice of Architecture I | 3 | AY 2021-22: 4 |

- 4. Review Data review data to determine if goals and benchmarks are being met
 - a. Goal was met, but improvement continues to happen see below.
 - b. Goal was not met. The Career Paths & Opportunities sessions have not occurred consistently.
 - c. Goal was not met.
 - d. Goal was met.
- 5. **Improvement Plan for AY 2022-23 -** program changes and refinements made based on a review of the goals, assessments, and results.
 - a. The Career Fair was held in the Architecture West building until 2021, then it shifted to the McCamish Pavilion, a large indoor arena for Georgia Tech basketball, to better accommodate the increasing number of firms interested in attending. The SoA also engaged the Institute career services group to help organize, promote, and run the event, which provided significantly improved services for both the attending firms and participating students. In addition to individual booths, space was also provided for firms to conduct private interviews with students.
 - b. The Career Paths & Opportunities sessions will be more formalized and held each semester.
 - The SoA Lectures and Events series will continue to host a wide range of practitioners.
 - d. ARCH 6315, Practice of Architecture I will continue to teach the path to licensure and the evolving context of the architecture profession.

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.

Program Response:

Design studios are where students in the M. Arch synthesize the broader context around design and architecture learned from history and theory courses, the discipline specific knowledge gained from technology courses, and the representation and production techniques learned from Media + Modeling courses to think creatively about design problems. The M. Arch design studio sequence is structured to build foundational skills and knowledge in the Core year, combine speculative creativity with a studio dedicated to issues around climate change in the Advanced year, and conclude with the integration of design and research in the final year. Other required and elective courses integrate with design studios each year to provide a comprehensive understanding of the many factors that impact and can be impacted by design. These courses also give students a broader understanding of the various types of work and job opportunities that are connected to the design professions. For instance, in the Integrated Building Systems courses, students learn how technical knowledge of building materials, assemblies, and construction sequencing are essential for good design and the benefits of being on the building side of the AEC industry.

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ARCH 6028, 6029, 6030 M. Arch Core Studios (1st yr.): The first year Core Studios introduce core principles of architectural design including formal, spatial, organizational, and visual logics that give students coming into the program with little or no experience a strong foundation in design thinking and the necessary skills to explore and develop solutions to architectural problems. Building programs and sites are modest in scale and complexity and representational techniques focus on orthographics, diagrams, and basic 3D drawing types. Physical models are heavily utilized to teach beginning students to think spatially. Design iteration is also a foundational skill that is emphasized in Core studios.

ARCH 6039, 6040 M. Arch Advanced Studios (2nd yr.): The second year Advanced Studios bring together continuing Core students with incoming 2-year students from pre-professional architecture programs. The theme of the Fall studios is "critical imaginative" and encourages students to combine grounded principles of architectural design learned in previous studios with more speculative imagination to instill the importance of thinking broadly and creatively as part of their design process. This builds their skills in design thinking and expands their capacity for novel solutions to architectural problems.

The Spring semester is the flagship Portman Prize Design Studio where students are introduced to integrated design that synthesizes creative, social, technical, and regulatory factors into their design solutions. This studio also incorporates multiple factors around climate change into the studio brief and is distinguished by the incorporation of the Portman Prize Visiting Critic, a distinguished practitioner with expertise in a particular aspect of climate change research, who works with the GT faculty to develop the studio agenda.

In 2018, Billie Faircloth, partner, and head of research at Kieren Timberlake, was invited as the Portman Prize Critic and worked with GT faculty to develop a studio on principles of circular economy in the AEC industry. Students were given a rural site in north Georgia and challenged to develop a building design using only material found on the site and to include a strategy for extraction, production, and disassembly.

In both 2019 and 2020, Portman Prize Critic Alan Organschi, an accomplished architect and researcher in mass timber construction and bio-based building assemblies, worked with GT faculty to develop a studio curriculum that introduced students to designing with mass timber as a viable strategy for large-scale carbon sequestration. As part of the 2019 studio, students visited timber fabrication plants and toured innovation timber-built buildings as part of a research phase before doing a comprehensive design project based on this knowledge. In the 2020 studio, students focused on concepts and techniques of regenerative design where they had to do a comprehensive survey of an existing building as a foundation to re-purpose the material from the building into a new design on the same site.

The most recent Portman Prize Studio in 2022, led by structural engineer and resiliency researcher Guy Nordenson, utilized a site along the Mississippi Delta to develop building prototypes for underserved communities in flood-prone areas that do not want to be displaced. The research and student work from each of these studios is documented in an annual publication.

ARCH 6049, 6050 M. Arch Design & Research Studios (3rd yr.): The relationship between design and research is an ongoing and lively topic of discussion and exploration at the SoA that is most focused in the Design & Research Studios. These studios are part of the final year curriculum and are largely taught by faculty who are actively engaged in research. It allows these faculty to test concepts from their research in a design studio setting and gives students exposure to Ph.D.-level research and how it might be applied to a design problem.

While studios are the foundation of the design curriculum, the importance of design thinking is emphasized across all courses in the M. Arch program. For example, ARCH 7102 Integrated Building Systems II & ARCH 7103 Integrated Building Systems III, foreground how materials, assembly details, building systems, building codes, and construction logistics are critical design drivers. It also importantly foregrounds that these factors are not just constraints but, that when approached from a design position, are essential ingredients to the most creative architectural solutions. Similarly, in ARCH 6010, 6020, 6030 Media + Modeling I, II, III, students are taught software not simply as a skill but as an integral part of the design process. They learn the close connection between representation and design and in the advanced class, students reverse engineer the design logics of seminal case study buildings to develop parametric models that are then used to generate alternative design solutions based on the same set of logics. In summary, the M. Arch program seeks to prepare students with the following design thinking abilities:

- Broad strategic thinking about complex problems utilizing the unique approach of
 design thinking that incorporates many factors that are both well-defined and more
 quantitative as well as factors that are more loosely defined and provide the general
 context for understanding a problem.
- Creative speculative thinking that allows room for unique solutions to emerge and are inspired by more tangential factors to a given problem. For instance, how a particular work of art might inspire ideas that become central to a design solution.
- **Technical thinking** that draws on a designer's knowledge of structures, environmental systems, materials, and building assemblies.
- Social and environmental impacts of design and an understanding that the decisions made as designers, from approaches to site planning and context to material selections, have both direct and indirect impacts on society and the future health of the planet.

ARCH 7101, 7102, 7103: Integrated Building Systems

Required technology courses provide students with an understanding of the multiple disciplines involved in the practice of architecture from the base engineering disciplines (mechanical, structural, electrical) to more specialized trades such as acoustics, energy modeling, and IT. ARCH 7101, Integrated Building Systems (IBS) I establishes foundational principles of structures and environmental systems that lead into the ARCH 7102, IBS II and ARCH 7103, IBS III courses, which are more project-based. ARCH 7102, IBS II is structured around students doing a precedent study of a notable, recently completed steel frame building through a deep dive into the set of professional construction documents provided by the architectural or engineering firm who did the project. Students translate the 2D construction drawings into 3D computer models that include structure, substructure, and enclosure. Each student models a portion of the building in detail to understand discreet building components, materials, assemblies, and construction sequencing. ARCH 7103, IBS III builds on the knowledge gained in the prerequisite courses and includes the design and engineering of a 3-4 story concrete frame building. Students produce a design development set of drawings that include architectural, structural, mechanical, and electrical drawings.

Portfolio Competition and Celebration

At the end of the fall semester, the SoA holds an all-school Portfolio Competition and Celebration where students prepare and display a portfolio of all design work completed at the school to that point. This includes design studios, technology courses, and any elective where visual work is produced. The portfolios are exhibited and organized by studio section in the Hinman Building, and students spend the afternoon viewing the portfolios from all programs and years. Simultaneously, faculty are assigned to review a group of portfolios from another studio to evaluate the work and select a top portfolio. At the conclusion of the afternoon, portfolio winners are announced and given a book selected by their studio instructor. This event has become a favorite among students and faculty and provides a structure for students to learn from their peers and improve their portfolio each year. It also provides a snapshot of the work produced at the school for faculty to view, evaluate, and respond to.



Final Graduation Portfolios

As a culmination of the iterative versions of their portfolios that each student produces annually for the Portfolio Competition and Celebration, all graduating students are required to submit a final portfolio of all work done completed in the Master of Architecture program. These portfolios are carefully reviewed by faculty and used to determine design awards for graduation in addition to serving as the basis for curriculum improvement discussions. These curriculum discussions have been ad hoc to this point but will be more structured moving forward as part of our assessment improvement plan.

ASSESSMENT (see section 5.3 for a full description of the assessment process)

- 1. Goals set goals for each PC & SC
 - a. The M. Arch program provides students with the skills and methodologies to creatively solve design problems and effectively communicate design solutions.
 - b. The design studios in the M. Arch program include projects in different settings relative to location, culture, and user types.
 - c. The design studios in the M. Arch program include projects with a range of scales that include small buildings, mid-scale institutional buildings and large buildings with an urban component.
- 2. **Assessment Points** identify the courses, activities, or other points where the assessment will occur
 - a. Primary
 - i. ARCH 6039, 6040, 6049, 6050: Advanced and Design & Research Studios
 - ii. ARCH 6010, 6020, 6030: Media + Modeling I, II, III
 - b. Secondary
 - i. ARCH 7101, 7102, 7103: Integrated Building Systems I, II, III
 - ii. Portfolio Competition and Celebration
 - iii. Final Graduation Portfolios
- 3. **Measures / Benchmarks / Results** identify assessment measures and benchmarks for each measure. These measures map directly to the goals above.

| Goals | Assessment Measures | Benchmarks | Results |
|-------|--|---|--------------------|
| а | Number of non-studio courses that teach design methodologies and communication skills | 6 per academic year | AY 2021-22: 9 |
| b | Number of studios that work in a range of geographic locations: Atlanta; US outside of Atlanta; outside the US | 1 per academic year in each location | AY 2021-22: met |
| С | Number of studios that work in a range of scales: less than 20,000SF in size; over 20,000SF | 1 per academic year at each scale | AY 2021-22: met |

- 4. Review Data review data to determine if goals and benchmarks are being met
 - a. Goal a was met with the following courses:
 - i. ARCH 6010, Media + Modeling I
 - ii. ARCH 6020, Media + Modeling II
 - iii. ARCH 7030, Media + Modeling III
 - iv. ARCH 8833, Drawing / Conception, Perception
 - v. ARCH 8833, Design Scripting
 - vi. ARCH 8833, Evidence-based Design
 - vii. ARCH 8833, REVIT



- viii. ARCH 8833, Collage Making
- ix. ARCH 8833, Parametric Design
- b. Goal b was met with the following studios:
 - i. Atlanta: ARCH 6049, Design & Research Studio I: MAX:MIN The Power of Place and Social Production, critic: Associate Professor Julie Kim
 - ii. Outside Atlanta: ARCH 6040, Advanced Studio II (Portman Prize Studio): Raising Community, Adaptation in the Yazoo Mississippi Delta, studio coordinator: Professor of Practice David Yocum
 - iii. Outside the US: ARCH 6050, Design & Research Studio II: *Model Communities for Rwanda*, critic: Professor of Practice Michael Murphy
- c. Goal c was met with the following studios:
 - i. Under 10,000 SF: ARCH 6050, Design & Research Studio II: *Stellavista The House Matrix*, critic: Professor Lars Spuybroek
 - ii. Over 10,000 SF: ARCH 6049, Design & Research Studio I: *Creating* spaces in common: museums objects viewers, critic: Professor John Peponis
- 5. **Improvement Plan for AY 2022-23** program changes and refinements made based on a review of the goals, assessments, and results.
 - a. Goal a changes & refinements:
 - The program will continue to improve the non-studio elective courses to teach students the most current design methods and communication skills.
 - b. Goal b changes & refinements:
 - i. The studio coordinators for each year will work more closely with the studio critics to verify projects with a range of geographic settings.
 - c. Goal c changes & refinements:
 - i. The studio coordinators for each year will work more closely with the studio critics to verify projects with a range of scales.

PC.3 Ecological Knowledge 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.

Program Response:

The SoA M. Arch program emphasizes the critical importance of understanding the impact of buildings and cities on the natural environment and the numerous points within professional practice where the decisions made by architects can have either a negative or positive impact. Through several key required courses supported by electives and extracurricular activities, students are taught to think systemically about how architectural design integrates with natural systems.

ARCH 6040: Advanced Studio II (Portman Prize Studio)

The SoA recently re-envisioned ARCH 6040, Advanced Studio II (Portman Prize Studio) – to explicitly address climate change and social equity. Since that time studios have addressed topics that include material resources and circular economy, mass timber construction, carbon sequestration, regenerative design, material reuse, and design for underserved communities in flood zones along the Mississippi River. See Section PC.2 Design for a full description.

ARCH 7360: Design and Climate Change

Upon completion of the <u>Kendeda Building for Innovative Sustainable Design</u> a 2022 AIA National Design Award winning building recently completed on Georgia Tech's campus and the first Living Building Challenge certified building in Georgia, the SoA initiated a new required course for all M.



Arch students, ARCH 7360: Design and Climate Change, to fully leverage the teaching and learning capacity of this unique building. The ongoing monitoring of the performance and operation of the building is a key part of the Living Building Challenge and an unparalleled opportunity for students to learn about the relationship of the building to the surrounding natural environment over time. Additionally, the Kendeda Building is the cornerstone for a new series of investments at Georgia Tech over the next ten years that will serve as an incubator for advancing new ideas related to interdisciplinary thinking on sustainability and the built environment. This course is intended to be a conduit for connecting our M. Arch students and the SoA to these exciting new Institute initiatives.

The course positions design as an essential component of research that explores the sociocultural and eco-political dimensions of climate change. Students complete selected readings and participate in topical discussions with a series of invited external participants who are experts in their related fields, many of whom were involved in the design of the Kendeda Building. Student groups are formed based on common interest from the course to develop a podcast that includes conversations and interviews with experts across campus, within the professional community in Atlanta or through video conference meetings with participants from afar.

ARCH 6227: Architecture & Ecology

Architecture & Ecology is a seminar affiliated with <u>Georgia Tech's Serve-Learn-Sustain initiative</u> and supports its commitment to helping students develop the expertise needed to help create sustainable communities where humans can flourish, now and in the future. Students engage current environmental problems from an ecological perspective, learning essentials of ecological thinking and science in relation to design practice and construction along with the research methods needed to advance an understanding of these principles.

The Douglas C. Allen Lecture

<u>The Douglas C. Allen Lecture Series</u> was established and endowed by alumni, faculty, and friends in honor of Professor Douglas C. Allen (1947-2014) in appreciation for his long-time dedication to the College of Design (previously the College of Architecture). This series invites leaders in landscape architecture with an emphasis on the impact of climate change on landscapes and cities.

ECO Student Organization | Material Recycling Program

ECO at Georgia Tech is a student-led organization focused on reviving the School of Architecture's learning ecosystem for the betterment of the planet. The organization works to bring awareness of responsible material choices to net-zero studio practices that promote environmental wellness within the SoA design community. One of the flagship initiatives of ECO is the Material Recycling Program started in response to the amount of material waste generated within design studios and particularly at the end of semester. All discarded materials are gathered and stored in the student-run Material and Supply store for reuse in future studios.

ASSESSMENT (see section 5.3 for a full description of the assessment process)

- 1. Goals set goals for each PC & SC
 - a. The M. Arch program embeds topics related to ecological design thinking and climate change into the core curriculum and maintains elective offerings that address these topics.
 - b. The SoA provides financial and administrative support for curriculum enhancements and student organizations that address issues around climate change
 - c. The SoA invites outside lecturers and experts in ecological design thinking and climate change to the school to supplement the knowledge of the faculty.
- Assessment Points identify the courses, activities, or other points where the assessment will occur



- a. Primary
 - i. ARCH 6040: Advanced Studio II, Portman Prize Studio
 - ii. ARCH 7360: Design & Climate Change
- b. Secondary
 - i. ARCH 7101: Integrated Building Systems I
 - ii. ARCH 6227: Architecture & Ecology
 - iii. Douglas C. Allen Lecture
 - iv. ECO Student Organization / Material Recycling Program
- 3. **Measures / Benchmarks / Results** identify assessment measures and benchmarks for each measure. These measures map directly to the goals above.

| Goals | Assessment Measures | Benchmarks | Results |
|-------|--|--------------------------------|-------------------------|
| а | Number of required courses that cover issues around ecological knowledge as a learning objective | 2 per academic year | AY 2021-22: |
| b | Number of elective courses that cover issues of ecological knowledge as a learning objective | 2 per academic year | AY 2021-22: 2 |
| b | Budget provided for curriculum enhancements related ecological knowledge and climate change | \$2000 per academic year | AY 2021-22: \$14,000 |
| С | Number of external lecturers that address issues of ecological knowledge and climate change | 2 per academic year | AY 2021-22: 2 |

- 4. **Review Data** review data to determine if goals and benchmarks are being met
 - a. Goal a was met with the following courses:
 - i. New course developed and added to the required M. Arch course curriculum, ARCH 7360, Design & Climate Change
 - ii. ARCH 6040, Advanced Studio II, Portman Prize Studio re-envisioned with an explicit focus on climate change
 - iii. ARCH 6531, Environmental Systems I (required)
 - iv. ARCH 6227, Architecture & Ecology (elective)
 - v. ARCH 6447, Urban Ecological Design (elective)
 - b. Goal b was met with the following:
 - i. Creation of a new student organization, ECO.
 - ii. SoA provided \$1,000 support for ECO including their Material Recycling program
 - SoA provided \$13,000 and administrative support for a field trip to the Mississippi Delta for all students in ARCH 6040, Advanced Studio II, Portman Prize Studio
 - c. Goal c was met with the following lectures and events:
 - i. Portman Prize Critic Guy Nordenson presented a public lecture on his research around resiliency in coastal flood zones.
 - ii. ReDesigning Cities: Atlanta's Parks and Greenways as Agents of Urban Transformation with Adrian Benepe, Clyde Higgs, Tim Keane
- 5. **Improvement Plan for AY 2022-23** program changes and refinements made based on a review of the goals, assessments, and results.
 - a. Goal a changes and refinements:
 - i. ARCH 7360, Design and Climate Change will continue to be refined and will make the podcasts produced publicly available
 - b. Goal b changes and refinements:
 - i. The SoA will continue to provide financial support for curricular enhancements around ecological knowledge and climate change.



- c. Goal c changes and refinements:
 - The Douglas C. Allen lecture was not held in AY 2021-22 but will be reinstated in AY 2022-23

PC.4 History and Theory—How the program ensures that students understand the histories and theories of architecture and urbanism, framed by diverse social, cultural, economic, and political forces, nationally and globally.

Program Response:

Students experience an engaging and varied history and theory curriculum through four required courses, outlined in the assessment points below. Several practice and professional electives also cover history and theory topics, while various design studios emphasize the relationship between place, meaning, and development in the built environment, relying on underlying historic foundations to explore site conditions, socio-economic influences, and changes over time. This places an emphasis on history and theory as an invaluable lens for design.

ARCH 6105, 6106, Architectural History I, II

The required survey courses, ARCH 6105, 6106 Architectural History I and II, were substantially redesigned, respectively, by new faculty members Danielle Willkens and Elisa Dainese in fall 2020 and spring 2022 to approach the courses from thematic rather than strictly chronological perspectives. They also introduced biweekly recitations, to cultivate focused discussions among the graduate cohort enrolled in the survey courses alongside undergraduates in the ARCH 2111 and 2012 sections of the history sequence. Reflecting upon current events and the fact that history, or its retelling, is never neutral, these architectural surveys shifted to address contemporary topics, linking the past, present, and future. In the wake of the Black Lives Matter movement, alongside the reinvigoration of far-right groups, the global women's 2017 Spring strike, and environmental disasters such as devastating floods and hurricanes, the architectural discipline and its theorization need to investigate these problems and pressures in an increasingly interconnected reality. Lectures, discussions, and assignments directly address the legacies of indigenous and vernacular architecture, the conscious displacement and erasure of historic sites and cultures, questions of race and identity, societal organization and representations of power, the role of climate, post-colonial development, and memory. The immediate context of Atlanta and the larger southeast region of the U.S. are also explored, as local and global sites are placed in conversation through independent and collaborative thematic timeline and essay exercises.

ARCH 7350, Foundations of Architectural Theory

This required course provides students with a foundational knowledge about contemporary theoretical debates and positions. The course covers key ideas and concepts that have informed architecture since the advent of modernism, an understanding of their philosophical sources, and the knowledge of the historical transformations of such ideas in relationship to broader cultural conditions. Students gain an intellectual framework with which to understand the role of theory in architecture, of its necessity, and the way it has shaped the built environment.

ARCH 7151, History of Urban Form

Understanding cities, the largest and most complex artifacts in human history, is essential as humans face the challenges of building a sustainable future. This course is taught from historical vantage points across the globe, recognizing that urban form is shaped by many influences — ecological, technological, cultural, political, and economic. The framework for examining the form of cities, their histories, and their present situations is morphological, having to do with urban form and structure from the perspectives of territories, public domains, and private domains. This three-part urban structure sets the stage for the everyday lives of citizens and denizens alike, enabling, or impeding accessibility, mobility, diversity, and resiliency for changes over time.

Seminars, Field Studies

NvB

Through seminars, faculty mentorships, and opportunities disseminated in the SoA's enewsletter, Buzzworthy, students participate in external lectures, conferences, and events sponsored by regional, national, and international history and theory organizations, such as the Atlanta Preservation Center, the Beloved Community, Inc., the Georgia Trust's statewide Historic Preservation Conference, the Southeast Chapter of the Society of Architectural Historians (SESAH) and SAH, the Southeast Chapter and international Institute of Classical Architecture & Art (ICAA), the Vernacular Architecture Forum (VAF), and others. Additionally, established in June 2021, the SoA has a Cooperative Ecosystem Studies Unit (CESU) Research and Training Program with the National Park Service's Southeast Region to collate the Cultural Resources Research and Inventory. This is a five-year, renewable contract under the direction of Assistant Professor Danielle Willkens as Principal Investigator (PI). Through paid research assistantships, alongside other funding from the National Center for Preservation Technology and Training (NCPTT), students have direct experience with the NPS and its management of the historic built environment, while contributing to the SoA team that is leading new digital documentation techniques for the study and preservation of regional heritage sites. Of particular focus are sites related to the American civil rights movement in the southeast.

- 1. Goals set goals for each PC & SC
 - a. The M. Arch program offers required courses that address a historical understanding of works of western and non-western architecture in their physical, social, cultural, and technological contexts.
 - b. The M. Arch program offers elective courses that address a historical understanding of works of western and non-western architecture in their physical, social, cultural, and technological contexts.
 - c. The M. Arch program provides opportunities for intensive field studies and sitebased investigations in historical contexts.
 - d. The M. Arch program exposes students to an intellectual framework with which to understand the role of theory in architecture of its necessity and the way it has shaped the built environment.
- 2. **Assessment Points** identify the courses, activities, or other points where the assessment will occur
 - a. Primary
 - i. ARCH 6105 & 6106: History of Architecture I & II
 - ii. ARCH 7350: Foundations of Architectural Theory I
 - iii. ARCH 7151: History of Urban Form
 - b. Secondary
 - i. ARCH 6151: Theories of Urban Design
 - ii. ARCH 6160, Race, Space, and Architecture
 - iii. ARCH 8803, Architecture and Decolonization
 - iv. ARCH 8803. White: The Other Color
 - v. International Education Programs
- 3. **Measures / Benchmarks / Results** identify assessment measures and benchmarks for each measure. These measures map directly to the goals above.

| Goals | Assessment Measures | Benchmarks | Results |
|-------|---|---------------------------|--------------------|
| а | Percent of required course content that features on non-western, indigenous, and traditionally overlooked designers and sites | 40% | AY 2021-22: Met |
| b | Number of electives offered on non-western, indigenous, and traditionally overlooked designers and sites | 2 per academic year | AY 2021-22: |

NVB

| С | Availability of intensive field studies (i.e., site-based investigations through studios, seminars, and study abroad programs) | 4 per semester | Achieved ARCH 6049 + 6160 + 6352 + |
|-----|---|--|--|
| а-с | Participation in the Institute-level Core C General Education assessment to evaluate the (1) how media types (i.e., analog vs. digital) shape understandings of architectural history, and how (2) structure and (3) performative aspects of architectural design reflect cross-cultural contact, assimilation and/or adaptation. | 100% participation, with 75% scoring a B+ or above | Achieved AY 2021- 2022: 100% participation, 80% B+ or above |

- 4. Review Data review data to determine if goals and benchmarks are being met
 - a. Goal a was met with the following courses:
 - i. ARCH 6105, History of Architecture I
 - ii. ARCH 6106, History of Architecture II
 - iii. ARCH 7151, History of Urban Form
 - b. Goal b was met with the following courses:
 - i. ARCH 6160, Race, Space, and Architecture
 - ii. ARCH 8803, Architecture and Decolonization
 - iii. ARCH 8803, White: The Other Color
 - c. Goal c was met through the following courses, activities:
 - i. ARCH 6160, Race, Space, and Architecture
 - ii. International Education Programs
 - d. Goal d was met with the following courses:
 - i. ARCH 7350. Foundations of Architectural Theory I
 - ii. ARCH 6151, Theories of Urban Design
- 5. **Improvement Plan for AY 2022-23 -** program changes and refinements made based on a review of the goals, assessments, and results.
 - a. The survey courses were redesigned in fall 2020 and spring 2022 to address the broader context of history, theory, and agency in the built environment.
 - The History and Theory task force meets once per semester to review required courses.
 - Following AY 2022-2023 and the VTR, the AY 2023-2024 assessment cycle will
 explore a possible reorganization of required history and theory courses for the
 M. Arch.

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.

Program Response:

Georgia Tech is a Carnegie R1 institution and there is a deep culture of research on campus that impacts each of the six colleges and thirty schools in unique ways. The rigor and legacy of research that is more pervasive in engineering, science, and computing, which make up over 90% of the campus population, is the broader context for the M. Arch program. The SoA has five legacy and three new research labs (summarized in Section 2.4, Knowledge and Innovation) that serve as a backdrop for the M. Arch curriculum and while only a portion of M. Arch students are directly engaged with these labs, the research, the research faculty, and several of the Ph.D. students working in the labs play a critical role in the M. Arch program.

ARCH 6040: Advanced Studio II (Portman Prize Studio)



This studio includes an initial research phase that sets the foundation for the design project. This studio is described in detail in Section PC.2 Design.

ARCH 6049, 6050: Design & Research (D&R) Studios

The relationship between design and research is an ongoing and lively topic of discussion and exploration at the SoA that is most focused in our Design & Research Studios. These studios are part of the final year curriculum in the M. Arch program and are primarily taught by faculty who are actively engaged in scholarly or technical research, many of whom are research lab directors. The D&R studios allow these faculty to test concepts from their research in a design studio setting and gives students exposure to Ph.D. level research and how it might be applied to a design problem. In addition to our full-time research faculty, the D&R Studios also include a studio taught by the Ventulett Distinguished Chair in Architectural Design, a practitioner with a record of international leadership and excellence in architectural design who brings their unique areas of interest to the school.

Research Labs

See Section 2.4, Knowledge and Innovation

Research Seminars

M. Arch students have several electives built into the curriculum plan that allow them to choose from a range of seminars and workshops that are based on faculty research. These courses allow students to extend their engagement with a faculty member they might have had for studio or to work with research faculty on topics not covered in design studios. Examples of these courses are Shape Grammars (Professor Thanos Economou), Evidence-based Design (Professor Craig Zimring), Advanced Production (Assistant Professor Keith Kaseman), Bioconstructivism (Professor Lars Spuybroek), Inquiry in Building Performance (Assistant Professor Tarek Rakha), and Theories of Urban Design (Professor Ellen Dunham-Jones).

- 1. Goals set goals for each PC & SC
 - a. The M. Arch program incorporates research phases into design studios where students gain an understanding of foundational research and learn methods of application to design projects.
 - b. The M. Arch program exposes students to the formulation, development, and results of the research being conducted in the PhD program in the various research labs within the School of Architecture and College of Design.
 - c. The SoA invites internationally recognized practitioners known for their leadership and innovation in design practice to teach in the M. Arch program through the Portman Prize Critic and Ventulett Distinguished Chair in Architectural Design positions.
- 2. **Assessment Points** identify the courses, activities, or other points where the assessment will occur
 - a. Primary
 - i. ARCH 6049 & 6050: Design & Research Studios
 - ii. Research Labs
 - b. Secondary
 - i. ARCH 6040: Advanced Studio II, Portman Prize Studio
 - ii. Research Seminars
- Measures / Benchmarks / Results identify assessment measures and benchmarks for each measure. These measures map directly to the goals above.

| Goals | Assessment Measures | Benchmarks | Results |
|-------|---------------------|------------|---------|
|-------|---------------------|------------|---------|

NVB

| а | Percentage of ARCH 6049, 6050 Design & Research Studios being taught by faculty doing active research | 75% each academic year | AY 2021-22: 7/8 studios= (87%) |
|---|--|------------------------------|--------------------------------------|
| b | Number of events / activities where PhD work in research labs and elsewhere is publicly presented | 1 per academic year | AY 2021-22: 2 |
| С | Research credentials of Portman Prize Critic and Ventulett Distinguished Chair in Architectural Design | International recognition | AY 2021-22: accomplished |

- 4. Review Data review data to determine if goals and benchmarks are being met
 - a. Goal a was met with the following faculty and research topics:
 - i. Julie Kim, Flourishing Communities
 - ii. Thanos Economou, Shape Computation
 - iii. John Peponis, Space Syntax
 - iv. Lars Spuybroek, Automation, Inhabitation
 - v. Keith Kaseman, Spatial Armatures
 - vi. Daniel Baerlecken, Origami & Parametric Design
 - vii. Michael Murphy, Social Practice
 - b. Goal b was met with the following events during AY 2021-22:
 - i. ConCave PhD Symposium, "Divergence in Architectural Research"
 - ii. Augenbroe Symposium
 - c. Goal c was met with the follow visiting appointments:
 - i. Portman Prize Critic: Guy Nordenson Professor, Princeton University; Founding Principal, Guy Nordenson & Associates
 - ii. Ventulett Distinguished Chair in Architectural Design: Michael Murphy– Founding Principal and Executive Director, MASS Design Group
- 5. **Improvement Plan for AY 2022-23 -** program changes and refinements made based on a review of the goals, assessments, and results.
 - a. Goal a changes and refinements:
 - i. The M. Arch program will increase involvement of M.S. Architecture and PhD Architecture students in the Design & Research Studios
 - b. Goal b changes and refinements:
 - i. The M. Arch program will increase M. Arch student attendance at research events
 - c. Goal c changes and refinements:
 - i. The M. Arch program will increase the number of M. Arch students who have meaningful engagements with visiting professors

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.

Program Response:

Preparing students to be future firm leaders and effective collaborators is a priority of the M. Arch program. This is achieved most effectively by exposing students to as many role models as possible within the SoA and the broader professional community in Atlanta. Many of the program's alumni are founders or leaders of local and national firms who are actively involved in the SoA. The annual Career Fair is an event where this alumni legacy is on full display as over sixty firms come to Georgia Tech to meet with and recruit students; many alumni return as representatives of their firms for the Career Fair.



A strong sense of leadership and collaboration can be seen in the number of students who are actively engaged in the five student organizations and the impact these groups have on the SoA. Each organization has a strong leadership team that covers planning, promoting, and financing their initiatives and they often work together on larger projects. Among many other activities, they organize interview training and resume and portfolio reviews with local firms, lectures and panel discussions, firm visits, field trips, and exhibitions.

Leadership and collaboration are also embedded in many of our courses both directly and indirectly. Many studios and seminars include team projects where students experience the actual dynamic of a professional office and learn how to divide work in the most effective manner for the best result and some courses include leadership preparation as a topic of study.

M. Arch students also participate on teams in the ULI Hines Competition and have opportunities to work with students from other programs including M.S. in Architecture, M.S. Urban Design, Master of City and Regional Planning, Master of Real Estate, and Master of Business Administration. Additionally, as part of ARCH 6049, 6050 Design & Research studios, M Arch students have the option of M.S. Urban Design and Master of City and Regional Planning studios to work with students in those programs.

ARCH 7102; Integrated Building Systems II

The M. Arch technology sequence culminates with a sequence of three courses, Integrated Building Systems I, II, and III. In addition to teaching students about structure, mechanical, electrical, lighting, plumbing, and construction systems and how they relate and integrate, the courses are also structured to teach students about collaboration and teamwork. The deliverable for IBS II is a detailed 3D model of a building based on a set of 2D construction documents and is organized in four phases with two phases being collaborative work and two phases being individual work. Students learn to utilize the strengths of each team member in their projects and the course is structured where the students produce shared objects and libraries, so the success of each individual student relies on the success of the team. The teaching team includes practicing architects and structural engineers who incorporate real world stories about the importance of team leadership and collaboration into their lectures.

Graduate Student Ambassadors, Graduate Student Advisory Council, Student Organizations M. Arch students are highly motivated, entrepreneurial, and proactive in contributing to the life of the School of Architecture. They are eager to get involved in one of the many student groups that are key to the success of the school. These groups provide leadership opportunities to engage directly with the school administration and require strong teamwork skills to succeed. These groups are described in detail in Section 2.5 Leadership, Collaboration, and Community Engagement.

ARCH 6315: Practice of Architecture I

ARCH 6315, Practice of Architecture I, taken by all M. Arch students, is positioned within the curriculum to focus on the trajectory of an individual's career path from architectural education, through early career steps, to firm leadership roles incorporating different approaches to firm organization, including cross-disciplinary career possibilities. The course content is delivered through a structure that mirrors a typical project sequence starting with marketing and contract negotiations through construction administration with an emphasis on the collaborative team dynamics enabled with Building Information Modeling (BIM). Students learn about the composition of multidisciplinary project design teams and the relationship with contractors, clients, users, and owners to realize complex buildings.

ARCH 8803: Entrepreneurship in Professional Practice

This course addresses the subject of successful firm leadership and management including finance, operations, marketing, and professional services with a focus on entrepreneurial leadership in professional practice. Successful firm leadership is reviewed in each category of



practice and case studies are provided with an analysis on how money is made or lost in professional practices today. Students develop an entrepreneurial strategic plan that includes a personal career plan with resiliency as a "plan B" pragmatic consideration. This course also includes many guest speakers from leading firms in Atlanta and around the world.

- 1. Goals set goals for each PC & SC
 - a. The M. Arch program provides opportunities for students to work with external stakeholders on complex physical and social projects.
 - b. The M. Arch program balances individual work with collaborative work across the curriculum and teaches methods of collaboration in design and the value of teamwork in solving complex problems.
 - The SoA provides opportunities for students to serve in leadership roles in one of the several student-driven initiatives (i.e., student organizations, Student Ambassadors, SAC)
- 2. **Assessment Points** identify the courses, activities, or other points where the assessment will occur
 - a. Primary
 - i. Graduate Student Ambassadors, Graduate Student Advisory Council, Student Organizations
 - ii. ARCH 6315: Practice of Architecture I
 - iii. ARCH 8803: Entrepreneurship in Professional Practice
 - b. Secondary
 - i. ARCH 7102: Integrated Building Systems II
- 3. **Measures / Benchmarks / Results** identify assessment measures and benchmarks for each measure. These measures map directly to the goals above.

| Goals | Assessment Measures | Benchmarks | Results |
|-------|--|--------------------------------|---------------------------|
| а | Number of required courses where students work directly with diverse external stakeholders in each of the three years of the program | 2 per academic year | AY 2021-22: |
| b | Number of required courses that are entirely or partial teamwork across all three years of the program | 25% per academic year | AY 2021-22: 7/22=32% |
| С | Number of student leadership positions in student organizations, student ambassadors, student advisory council | 30% of all M. Arch students | AY 2021-22: 53/120=44% |

- 4. Review Data review data to determine if goals and benchmarks are being met
 - a. Goal a was met in years 2 and 3 with the following courses:
 - i. ARCH 6049, Design + Research Studio I, Flourishing Communities
 - ii. ARCH 6040, Advanced Studio II, Portman Prize Studio
 - iii. ARCH 7360, Design & Climate Change
 - b. Goal b was met with the following courses:
 - i. ARCH 6040, Advanced Studio II, Portman Prize Studio
 - ii. ARCH 7360, Design & Climate Change
 - iii. ARCH 7102, Integrated Building Systems II
 - iv. ARCH 7103, Integrated Building Systems III
 - v. ARCH 6015, Structures I
 - vi. ARCH 7030, Media + Modeling III
 - vii. ARCH 6050, Design + Research Studio II
 - c. Goal c was met with 53 student leadership positions:
 - i. Student Organizations (4 total): 16 students
 - ii. Student Ambassadors: 31 students



- iii. Student Advisory Council: 6 students
- 5. **Improvement Plan for AY 2022-23 -** program changes and refinements made based on a review of the goals, assessments, and results.
 - a. Goal a changes and refinements:
 - i. The M. Arch program will increase the opportunities for student engagement with external stakeholders in year 1 of the 3-yr program.
 - b. Goal b changes and refinements:
 - i. The M. Arch program will refine this measure to monitor the balance of teamwork vs. individual work across the curriculum.
 - c. Goal c changes and refinements:
 - i. This goal is working very well and will continue to be supported.

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.

Program Response:

The SoA is dedicated to and takes proactive steps to create an exciting, respectful, and inclusive school culture for all faculty, staff, and students. Faculty are supported in their teaching, research, and creative goals and are provided an opportunity to make specific support requests as part of an annual evaluation process with the Chair. The staff are a critical and active part of the daily life of the SoA and meet weekly with the school leadership to discuss any issues related to school operations. The SoA prides itself on giving students opportunities to be an active part of the school, participate in the ongoing evolution of the school, and find their voice in determining their future career paths.

This culture is created and maintained across the SoA daily; a few anchor points and yearly highlights are listed below.

Portfolio Competition and Celebration

One of our most enjoyable community-building events is our annual Portfolio Competition and Celebration. At the end of each Fall semester, all students in the M. Arch program (along with our other programs) prepare and display their portfolios in Hinman for everyone to view and discuss. While this is a time when faculty do a careful review and assessment of the work presented and select winning portfolios from each studio section, the primary impact is a collective sense of pride, accomplishment, and sharing (alongside relief that the semester is over). Faculty bring cookies, the staff get an afternoon off to see the impressive creativity of the students they advise and support, and the students get to see a full range of portfolio work from all students in the school. Winners are announced at the end of the event, and each receives a book provided by the SoA and selected by their studio critic.

SoA Awards Ceremony and End of Year Student Exhibition

At the end of each school year, the SoA hosts an afternoon <u>Awards Ceremony</u> for all students, faculty, administration, and many alumni to acknowledge and celebrate the hard work of the students over the past year and during their time at the school. It is an occasion where alumni, many of whom are generous supporters of the school, get to see the full spectrum of the school, not just the students who received awards. Alumni come away from this event impressed and inspired by the maturity of our students and the support they show for each other. The audience claps and cheers each time an award is announced and there is an atmosphere of mutual support for all.

As part of the Awards Ceremony, the SoA acknowledges a faculty member with the Dean William L. Fash Award for Teaching Excellence who has demonstrated impactful teaching over the previous year. Additionally, each year one or more students are recognized with an SoA



Architecture Leadership and Service award that recognizes those students who have made an especially strong contribution to the culture of the school.

Following this event is the opening reception for the SoA <u>End of Year Student Exhibition</u> where all attendees of the Awards Ceremony proceed to Hinman to socialize and celebrate the work of the students. The building's studio and review spaces are full of drawings and models from all SoA programs that include design studios, technology courses, Media + Modeling courses, work from research labs, and many seminars. The exhibition extends into the Hinman Courtyard, which is full of built prototypes and installations constructed in the Digital Fabrication Lab (DFL).

Studio Culture & Student Resource Guide

Students are provided with a webpage that describes <u>studio culture</u> and the various dimensions of a studio-based education. This introduces students to the principles of criticism, desk crits, collaborative design, and design reviews, along with other principles that are new to many of our students from non-architecture backgrounds. Additionally, a <u>student resource guide</u> is provided that includes a range of topics from laptop requirements to printing and plotting to how to make a portfolio.

- 1. Goals set goals for each PC & SC
 - a. The SoA hosts social and celebratory events that bring the school community together for both academic and non-academic events.
 - b. The SoA dedicates time with the Student Advisory Council to discuss topics around the teaching and learning culture at the school.
 - c. The SoA supports student initiatives from the Student Advisory Council, Student Organizations and Students Ambassadors, that enhance the culture of the school.
- Assessment Points identify the courses, activities, or other points where the assessment will occur
 - a. Primary
 - i. Portfolio Competition and Celebration
 - ii. SoA Awards Ceremony and End of Year Student Exhibition
 - b. Secondary
 - i. Studio Culture & Student Resource Guide
 - ii. Graduate Student Advisory Council
- 3. **Measures / Benchmarks / Results -** identify assessment measures and benchmarks for each measure. These measures map directly to the goals above.

| Goals | Assessment Measures | Benchmarks | Results |
|-------|--|---------------------------|------------------|
| а | Number of non-academic social gatherings for faculty, staff, and students | 4 per academic year | AY 2021-22: 4 |
| b | Number of Student Advisory Council meetings dedicated to school culture | 2 per academic year | AY 2021-22: 2 |
| С | Number of events or activities organized by student organizations that the SoA provides financial and administrative support | 4 per academic year | AY 2021-22: 4 |

- 4. **Review Data** review data to determine if goals and benchmarks are being met
 - a. Goal a was met with the following gatherings:
 - i. SoA Convocation
 - ii. Portfolio Competition and Celebration
 - iii. End of Year Awards Ceremony



- iv. End of Year Student Exhibition
- b. Goal b was met during the monthly Student Advisory Council Meetings
- c. Goal c was met with the following events and activities:
 - i. AIAS South Quad Conference hosted at Georgia Tech
 - ii. SoA Student Organization annual lecture
 - iii. EQiA Forum
 - Support for new Hinman Supplies Store new items along with materials & supplies salvaged from previous semesters available to students for free.
 - v. The SoA provides \$1000 to each student organization to support their activities. Additionally, student organizations can request additional funds for special activities.
- 5. **Improvement Plan for AY 2022-23 -** program changes and refinements made based on a review of the goals, assessments, and results.
 - a. Goal a changes and refinements:
 - i. These social gatherings of faculty, staff and students are very successful and will continue. The SoA will strive to increase attendance by alumni and the broader Atlanta design community.
 - b. Goal b changes and refinements:
 - The Student Advisory Council meetings are very successful and will continue. Student representatives are generally comfortable discussing both positive and negative issues of learning and teaching culture at the SoA in this setting which helps the SoA leadership quickly address any issues.
 - c. Goal c changes and refinements:
 - i. The student organizations play a key role in the culture of the school and will continue to be supported by the SoA.

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.

Program Response:

The SoA's approach to addressing social equity and inclusion went through a comprehensive evaluation and assessment in the fall of 2020 through the work of an SoA Equity, Justice, and Inclusion (EJI) task force. This task force was composed of faculty, students, and staff who expanded on an action plan outline provided by the Chair to develop a full report and detailed action plan (Add to website and insert LINK) for the school to implement. Sections of the report most relevant to this PC included modifications to the curriculum, student support and engagement, and school culture. The school has committed to creating a public annual progress report that will encapsulate all the assessment points for this PC.

Seminars focused on EJI

In addition to the required courses, students in the M. Arch program can take several seminars that address issues of equity, race, inclusion, and the challenges of underserved communities in accessing the services of architects. These include: ARCH 6160: Race, Space, and Architecture in the United States, where students study frequently overlooked, erased, or misinterpreted elements within the built environment related to indigenous, minority, and underrepresented groups; ARCH 8833: Flourishing Communities Workshop, where students provide design input to underserved communities for projects like health centers, community centers, and housing; and an upcoming seminar Racial Capitalism: Inequity in the US Built Environment that traces the operations and effects of structural racism and inequity from the 1830s through the current pandemic.



Design Studios

Each year, several M. Arch design studios focus on themes surrounding social equity and inclusion. Most recently in 2021-22, the Portman Prize Studio addressed housing design for under resourced, flood-prone communities in the Mississippi Delta, Associate Professor Julie Kim's Design & Research studio titled "Radical Good Trouble" to evoke the legacy of John Lewis had students explore the architecture of protest, and Ventulett Chair Michael Murphy had students develop model communities in northern Rwanda on the edge of Virunga National Park. Students traveled to Rwanda to visit the site and the communities and to meet with government officials leading the effort to design these communities. One of the SoA's International Education programs, Design, Develop, Build, includes a graduate studio focused on the design, prototyping, and ultimately building, of a community facility in different locations in Africa, most recently Ghana and South Africa. Students design and prototype in Atlanta and then travel to the sites in the summer to build.

History Courses

The requisite survey courses explore the established canon of masterpieces and counterbalance this approach with discussions about new vernacular and nomadic sites, the changing role of the architect, and shifting concerns about architecture's social purpose and issues of representation. In addition to the impacts of politics, geography, religion, materials, and technology, these courses address questions of preservation, reconstruction, and the 'ownership' of history in the built environment. All required courses within the required history and theory offerings were assessed by the school's History and Theory task force to shape more inclusive syllabi with diverse authors, practitioners, discussions of craftspeople, and questions of accessibility and inequity.

Student Organizations

Two of our student organizations have a particular focus on issues of social equity and inclusion, the National Organization of Minority Architecture Students NOMAS) and Equity in Architecture (EQiA). These organizations are described in detail in Section 2.5 Leadership, Collaboration, and Community Engagement.

SoA Equity, Justice, Inclusion Committee

One of the outcomes of the EJI Task Force mentioned above was the creation of a standing SoA EJI Committee that will meet regularly with the school leadership and work closely with the College's Diversity and Inclusion Council. This committee will lead the effort to implement the action plan and prepare an annual report of progress made in all areas for the school community. This committee started in 2021-22 with limited success but will resume in 2022-23.

- 1. Goals set goals for each PC & SC
 - a. The M. Arch program ensures that topics of social equity and inclusion are incorporated into the core curriculum of required courses.
 - b. The M. Arch program provides opportunities for students to pursue their interests in issues of social equity and inclusion through elective offerings.
 - c. The M. Arch program regularly invites external lecturers to speak on issues around social justice and inclusion.
 - d. The M. Arch program monitors its progress on issues of equity, justice, and inclusion on an annual basis.
- Assessment Points identify the courses, activities, or other points where the assessment will occur
 - a. Primary
 - i. ARCH 6105, 6106: History Courses



- ii. SoA Equity, Justice, Inclusion Committee
- b. Secondary
 - i. ARCH 6160, Race, Space, and Architecture
 - ii. ARCH 8803, Architecture and Decolonization
 - iii. ARCH 6049, 6050: Design Studios (Flourishing Communities, Portman Prize Studio, Ventulett Studio trip to Rwanda, Design/Develop/Build International Education program to Africa)
 - iv. Student Organizations, NOMAS, EQiA
- 3. **Measures / Benchmarks / Results** identify assessment measures and benchmarks for each measure. These measures map directly to the goals above.

| Goals | Assessment Measures | Benchmarks | Results |
|-------|---|------------------------------------|--------------------------|
| а | Number of required courses that cover issues of social equity and inclusion | 2 per academic vear | AY 2021-22: 3 |
| b | Number of elective courses offered that cover issues of social equity and inclusion | 3 per academic year | AY 2021-22: 5 |
| С | Number of external lecturers that address issues of social equity and inclusion | 2 per academic year | AY 2021-22: |
| d | SoA documented progress on issues of equity, justice, and inclusion | Produce an annual EJI report | AY 2021-22: Completed |

- 4. Review Data review data to determine if goals and benchmarks are being met
 - a. Goal a was met with the following required courses:
 - i. ARCH 6105, Architectural History I
 - ii. ARCH 6040, Advanced Studio II (Portman Prize Studio)
 - iii. ARCH 7151, History of Urban Form
 - b. Goal b was met with the following elective courses:
 - i. ARCH 6160, Race, Space, and Architecture
 - ii. ARCH 8803, Flourishing Communities
 - iii. ARCH 8803. Architecture and Decolonization
 - iv. ARCH 6271, Healthcare Design of the Future
 - v. ARCH 6352, The Left Hand of Darkness
 - c. Goal c was met with the following lecturers:
 - i. Redesigning Cities with Affordable Housing, Andrew Ross
 - ii. Breathing is Spatial, Michael Murphy
 - iii. Ecologies of Capabilities, Kofi Boone
 - d. Goal d was met with the annual committee report
- 5. **Improvement Plan for AY 2022-23 -** program changes and refinements made based on a review of the goals, assessments, and results.
 - a. Goal a changes and refinements:
 - i. The SoA will continue to include issues of social equity and inclusion in its core curriculum
 - b. Goal b changes and refinements:
 - i. The SoA will continue to offer elective courses on issues around social equity and inclusion.
 - c. Goal c changes and refinements:
 - i. The SoA will broaden the types of issues covered in its lecture series.
 - d. Goal d changes and refinements:
 - i. There is discussion of combining the SoA EJI committee with the College of Design Diversity, Equity, and Inclusion committee to consolidate



efforts and resources. If this is done, the SoA would continue to monitor goals specific to the M $\mathop{\sf Arch}\nolimits$ program.



3.2 Student Criteria (SC): Student Learning Objectives and Outcomes

A program must demonstrate how it addresses the following criteria through program curricula and other experiences, with an emphasis on the articulation of learning objectives and assessment.

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.

Program Response:

Students in the M. Arch program learn about the impact that buildings have on humans and the natural environment they inhabit through the curriculum, lectures, and engagements with practicing architects. Issues of health, wellness and safety are addressed through our technology sequence as it relates to indoor air quality, artificial and natural lighting, environmental human comfort, and life safety. These topics are also incorporated into design studios and are covered from a professional responsibility perspective in our professional practice courses. Many of our lectures and events address health, safety, and welfare at both the building and urban scales. One example is our Re-Designing Cities Lecture and Podcast series where recent episodes have covered topics like public health, post-pandemic cities, and parks as agents of urban transformation.

ARCH 6040: Advanced Studio II (Portman Prize Studio)

The Portman Prize Studio is an integrated studio where students develop design proposals that demonstrate a broad synthesis and consideration of user requirements, regulatory requirements, structural systems, life safety systems, site conditions, ecological concerns, and accessible design. Students develop an understanding of the dynamics between the built and natural environments and the responsibility to mitigate climate change by leveraging innovative social, political, ecological, advanced building performance, and resiliency principles.

ARCH 6315: Professional Practice I

As the core required professional practice course in the M. Arch curriculum, Pro Practice I provides students with an understanding of the path to becoming a licensed architect in the U.S. and the range of knowledge, skills, and responsibilities this requires. This includes an understanding of the principles of life safety, land use, and the related regulations that apply to buildings and building sites along with the evaluative criteria architects use to assess those regulations as part of a design project.

ARCH 6531: Environmental Systems I

This course investigates how architecture can be shaped by considering environmental conditions and human needs. Earth's climates and seasons, the physics of thermal energy, light, and sound, and our human desire to be comfortable, enjoy architectural spaces, and conserve resources lay the foundations for five main topics: solar geometry, thermal comfort and bioclimatic design, energy conservation, daylighting, and architectural acoustics. Environmental Systems I places a priority on how to employ passive architectural shapes, components, elements, and materials to work as systems that optimize thermal, visual, and acoustic comfort, before employing active engineering systems. Students learn to analyze problems, reason through alternatives, and develop solutions in the five subject areas of the course.

ASSESSMENT

The M. Arch program at Georgia Tech has a systematic and well-reasoned process for assessing the curriculum and making adjustments based on the outcome of the assessment process. As described in section 5.3, the process is a cycle that includes: 1. Setting goals for each PC and SC; 2. Identifying assessment points – the courses, activities, etc., where the goals will be met and assessed; 3. Identifying measures and benchmarks; 4. Collecting the results and aggregating the data to evaluate; 5. Reviewing the data against the goals and benchmarks; and 6. If the



benchmarks are not met, developing an improvement plan. The SoA receives support from the <u>Georgia Tech Office of Academic Effectiveness</u> and they work with us each year to submit an annual assessment report to their office, with the process outlined below.

Each PC and SC section in this report ends with the assessment process for that area of the program. The assessment points are outlined and elaborated on in the preceding narrative.

- 1. Goals set goals for each PC & SC
 - a. Students will demonstrate knowledge of the role of the built environment in human health, safety, and welfare at multiple scales. (6040)
 - b. Students will demonstrate knowledge of the relationship between health, safety, and welfare issues to project risks and liability (6351)
 - c. Students will demonstrate knowledge of the connections between daylighting, thermal comfort, and acoustics and human health, safety, and welfare. (6531)
- 2. **Assessment Points** identify the courses, activities, or other points where the assessment will occur
 - a. Primary
 - i. ARCH 6040: Advanced Studio II (Portman Prize Studio)
 - ii. ARCH 6315: Practice of Architecture I
 - iii. ARCH 6531: Environmental Systems I
 - b. Secondary
 - i. ARCH 7360: Design & Climate Change
- 3. **Measures / Benchmarks / Results** identify assessment measures and benchmarks for each measure. These measures map directly to the goals above.

| Goals | Assessment Measures | Benchmarks | Results |
|-------|---|-------------------------|---------------------------|
| а | Final Portman jury survey rating for student knowledge of the role of the built environment in human health, safety, and welfare. | Average of 3.5 out of 5 | AY 2021-22: partially met |
| b | ARCH 6515 midterm exam on student knowledge of managing project risks and liability issues through an understanding of human health, safety, and welfare. | Average grade of 85 | AY 2021-22: 88 |
| С | ARCH 6531 exam questions on student knowledge of the impact of daylighting, thermal comfort, and acoustics on human health, safety, and welfare | Average grade of 85 | AY 2021-22: 88 |

- 4. Review Data review data to determine if goals and benchmarks are being met
 - a. Goal a was partially met:
 - i. This goal was included in the course syllabi and studio content and discussed among faculty but not quantitatively measured.
 - b. Goal b was met
 - i. The average test score was 88
 - c. Goal c was met
 - i. The average test score was 88
- **5. Improvement Plan for AY 2022-23 -** program changes and refinements made based on a review of the goals, assessments, and results.
 - a. Goal a changes and refinements:
 - i. This measure will become part of a Qualtrics survey given to the final juries of the Portman Prize Studio and will tracked against a benchmark of 3.5 out of 5.
 - b. Goal b changes and refinements:
 - i. Course content and exam questions will be refined to more specially address student knowledge of human health, safety, and welfare at the building and urban scale.



- b. Goal c changes and refinements:
 - Course content and exam questions will be refined to more specially address student knowledge of human health, safety, and welfare at the building and urban scale

SC.2 Professional Practice—How the program ensures that students understand professional ethics, the regulatory requirements, the fundamental business processes relevant to architecture practice in the United States, and the forces influencing change in these subjects.

Program Response:

The SoA M. Arch program takes a proactive position toward professional practice that teaches students the state of the profession today while also challenging them to envision new forms of future practice. This is reflected in the courses offered, the invited lecturers, active engagement with research, and the way in which the SoA leverages its location in Atlanta. Students embrace this challenge and actively engage with the professional community outside of the formal curriculum through <u>student organizations</u>, <u>Career Fairs</u>, office visits, the <u>practicum program</u>, and summer internships. Practitioners from Atlanta and around the country are also regular participants in our studio reviews and are invited as guest speakers in many of our courses.

ARCH 6315: Professional Practice I

As the core required professional practice course in the M. Arch curriculum, ARCH 6315 provides students with an understanding of the path to becoming a licensed architect in the U.S. and the type of knowledge, skills, and responsibilities this requires. Students are introduced to architectural practice, its history, ideological structure, and its professional obligations to society. This course ensures that students understand the foundation of professional ethics, the regulatory requirements, and the fundamental business processes relevant to architecture practice through lectures, exams, and a combination of individual and team student projects. culminating in role-playing simulations for start-up business interviews and RFQ marketing interviews. Knowledge gained in the course is measured by in-class oral presentations, written and graphic deliverables, and test questions on midterm and final exams. The course is taught by Professors of the Practice from both the School of Architecture and the School of Building Construction, which provides students with expertise in both disciplines to reinforce the critical relationship between design and construction.

ARCH 8803: Entrepreneurship in Professional Practice

As one of the professional practice II requirements in the M. Arch program, this course addresses the subject of successful firm leadership and management including finance, operations, marketing, and professional services with a focus on entrepreneurial leadership in professional practice. Successful firm leadership is reviewed in each of these categories of practice primarily through notable case studies that provide an analysis on how money is made or lost in professional practices today. As the final deliverable, students develop an entrepreneurial strategic plan that includes a personal career plan with resiliency as a "plan B" pragmatic consideration. This course includes many guest speakers from leading firms in Atlanta and around the world that provide real-world insight into the challenges and opportunities of setting up and running an architectural firm.

ARCH 6313: Traditions in Architectural Practice

This course is also one of the professional practice II requirements in the M. Arch program and offers students an understanding of architectural practice from a historical perspective to better understand the shifts in the profession that are occurring today. The course focuses on the material culture of American architectural practice – its tools, documents, methods of labor – as a means of unearthing the embedded ideological assumptions of the profession. It poses a critique of architectural practice as we understand it today and speculates about alternative forms of emergent practices. This course is taught by Professor George Johnston, a recognized historian and scholar of architectural practice, who published two books on this topic.



ASSESSMENT (see section 5.3 for a full description of the assessment process)

- 1. Goals set goals for each PC & SC
 - a. Students will demonstrate knowledge of professional ethics within architecture and the AEC industry.
 - b. Students will demonstrate knowledge of the regulatory requirements of architectural practice.
 - c. Students will demonstrate knowledge of the business of architecture.
- Assessment Points identify the courses, activities, or other points where the assessment will occur
 - a. Primary
 - i. ARCH 6315: Professional Practice I
 - ii. ARCH 8803: Entrepreneurship in Professional Practice
 - iii. ARCH 6313: Traditions in Architectural Practice
- 3. **Measures / Benchmarks / Results** identify assessment measures and benchmarks for each measure. These measures map directly to the goals above.

| Goals | Assessment Measures | Benchmarks | Results |
|-------|---|-------------|-------------|
| а | ARCH 6315 Exam questions on professional ethics | Average | AY 2021-22: |
| | in architectural practice | grade of 85 | 88 |
| b | ARCH 6315 Exam questions on the regulatory | Average | AY 2021-22: |
| | requirements in architectural practice | grade of 85 | 88 |
| С | ARCH 6315 Business Plan Development for startup | Average | AY 2021-22: |
| | architectural firm | grade of 85 | 86 |

- 4. Review Data review data to determine if goals and benchmarks are being met
 - a. Goal a was met.
 - b. Goal b was met.
 - c. Goal c was met.
- 5. **Improvement Plan for AY 2022-23 -** program changes and refinements made based on a review of the goals, assessments, and results.
 - a. Goal a changes and refinements:
 - i. Course content and exam questions will be refined to more specifically address professional ethics in architectural practice.
 - b. Goal b changes and refinements:
 - i. Course content and exam questions will be refined to more specifically address regulatory requirements in architectural practice.
 - b. Goal c changes and refinements:
 - i. The goal is adequately met through ARCH 6315 Professional Practice I and ARCH 8803 Entrepreneurship in Professional Practice. Both courses have students develop business plans for an architectural firm.

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.

Program Response:

Students are introduced to regulatory principles primarily through the required professional practice course and then learn how to apply those principles both in the integrated design studio, the Portman Prize Studio, and the culminating integrated building systems course. Another opportunity for students to learn about building and site regulations is the popular and successful



<u>Urban Land Institute (ULI) Gerald D. Hines Student Urban Design Competition</u> where six to eight interdisciplinary teams from Georgia Tech compete each year.

ARCH 6315: Professional Practice I

This course ensures that students understand the fundamental principles of life safety, land use, and current laws and regulations and the way in which architects use and evaluate these regulations when designing a building. This is achieved through guest lectures from expert code consultants in major architectural practices as well as through field trips to construction sites guided by project managers from both architectural and construction firms where students can see first-hand how these regulations are applied to design. This knowledge of regulatory context is tested extensively via questions on midterm and final exams.

ARCH 7103: Integrated Building Systems III

The semester-long project in this course is the design of a small prototypical infill building in a particular region of the U.S. Working with a teaching team that includes an architect, structural engineer, and MEP engineer students develop a set of drawings to the level of design development with an emphasis on systems integration and regulatory parameters that influence design decisions. Through lectures, site visits, and then application through the design project, students learn how design solutions address regulatory requirements that include accessibility, life safety, construction classification, and structural codes, among others. Students learn how to interpret and think creatively about regulatory constraints when developing architectural design solutions.

ARCH 6040: Advanced Studio II (Portman Prize Studio)

The Portman Prize Studio is an integrated studio that focuses on topics around climate change and the built environment. Students learn about the dynamic between the built and natural environments and the responsibility of architects to mitigate climate change by leveraging innovative social, political, ecological, and resiliency principles. Additionally, students are asked to demonstrate an understanding of user requirements, regulatory requirements, land use, and accessible design through their design proposals.

- 1. Goals set goals for each PC & SC
 - Students will demonstrate knowledge of the sources of and an ability to navigate and interpret regulatory documents relevant to architectural practice in the US. (6315)
 - b. Students will demonstrate knowledge of the fundamental principles of life safety and building code regulations and how to apply these to the design of project.
- 2. **Assessment Points** identify the courses, activities, or other points where the assessment will occur
 - a. Primary
 - i. ARCH 6315: Professional Practice I
 - ii. ARCH 6040: Advanced Studio II (Portman Prize Studio)
 - b. Secondary
 - i. ARCH 7103: Integrated Building Systems III
- 3. **Measures / Benchmarks / Results** identify assessment measures and benchmarks for each measure. These measures map directly to the goals above.

| Goals | Assessment Measures | Benchmarks | Results |
|-------|---|-------------------------|---------------------------|
| а | ARCH 6315 Exam questions on life safety and land use regulations | Average grade of 85 | AY 2021-22: 88 |
| b | ARCH 7103 Final jury survey on student knowledge of life safety and building code regulations incorporated into final project | Average of 3.5 out of 5 | AY 2021-22: partially met |

NAB

- 4. Review Data review data to determine if goals and benchmarks are being met
 - a. Goal a was met.
 - b. Goal b was partially met:
 - This goal was included in the course syllabi and course content and discussed among the final jury and faculty but not quantitatively measured.
- 5. Improvement Plans for AY 2022-23 program changes and refinements made based on a review of the goals, assessments, and results.
 - a. Goal a changes and refinements:
 - The SoA will continue to include issues of social equity and inclusion in its core curriculum
 - b. Goal b changes and refinements:
 - i. This measure will become part of a Qualtrics survey given to the final jury and will be tracked against a benchmark of 3.5 out of 5.

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.

Program Response:

The SoA M. Arch technology sequence went through a thorough comprehensive assessment and modification in 2018-2019 resulting in the sequence of courses listed below for SC.4 and SC.6 Building Integration. The first three remained as foundation courses in the areas of construction technology, structures, and environmental systems and are exam-based. These are followed by three courses that focus on building systems integration and are more project-based. Each of these courses is taught by both full-time faculty and practicing architects and engineers from the professional community in Atlanta.

ARCH 6229: Construction Technology I

Construction Technology I is a foundation course focused on materials, methods, and building assemblies that frames the relationship between architectural design and the science and craft of building. Students learn the terminologies and conventions of construction, how and why to make material selections based on how it is resourced, methods of production, assembly strategies, and aesthetic expression. Students are also introduced to concrete, wood, and steel structural systems, construction classifications, building components, and how these components come together into core and enclosure assemblies. Students are assessed through a combination of exams, sketching exercises, and design problems.

ARCH 6015: Structures I

This course provides students with a basic knowledge of analysis and design of building structures and the ordering of structural systems to resist gravity and lateral loads. Students investigate the behavior of structural systems through design examples, case studies, and physical testing of models. They gain an understanding of the mathematics and physics that govern structural analysis, including external and internal equilibrium, stability, free body diagrams, and internal force diagrams. Steel and concrete structural systems are introduced but more focus is placed on wood structural design; steel and concrete are the focus of subsequent courses. Through a group project, students learn to describe and demonstrate the structural design process from geometric synthesis and structural idealization to load identification and analysis, structural design, and finally construction. Students also gain an understanding of how architects and engineers collaborate in professional practice.



ARCH 7102: Integrated Building Systems II

This course focuses on structural framing and detailing and building enclosure assemblies through research and digital modeling of existing contemporary case study buildings. The course is structured around a precedent study of a notable, recently completed steel framed building, where students thoroughly study the set of professional construction documents provided by the architectural or engineering firm who did the project. Students translate the 2D construction drawings into 3D computer models that include structure, substructure, and enclosure. Each student models a portion of the building in detail to understand discreet building components, materials, assemblies, and construction sequencing. IBS II seeks to instill a conceptual and practical understanding of how building details and performance requirements are developed as an integral part of an overall design concept. Generating a detailed 3D model of their case study building is the learning method that students use to demonstrate this knowledge and understanding.

- 1. Goals set goals for each PC & SC
 - a. Students will demonstrate knowledge of construction materials and methods relative to resources used, manufacturing, and assembly, (6229)
 - b. Students will demonstrate knowledge of structural components, details, and assemblies and how these relate to the design and economics of projects. (7102)
 - c. Students will demonstrate knowledge of building components, details, and assemblies and the methods and sequencing of construction.
- 2. **Assessment Points** identify the courses, activities, or other points where the assessment will occur
 - a. Primary
 - i. ARCH 6229: Construction Technology I
 - ii. ARCH 6015: Structures I
 - iii. ARCH 7102: Integrated Building Systems II
 - b. Secondary
 - i. ARCH 6531: Environmental Systems I
- 3. **Measures / Benchmarks / Results** identify assessment measures and benchmarks for each measure. These measures map directly to the goals above.

| Goals | Assessment Measures | Benchmarks | Results |
|-------|--|------------------------|------------------------|
| а | ARCH 6229 Midterm and final exams | Average grade of 85 | AY 2021-22: 90 & 84 |
| b | ARCH 7102 Project: Phase 2: Structural Systems | Average grade of 85 | AY 2021-22: 87 |
| С | ARCH 7102 Project: Phase 4: Enclosure Systems | Average grade of 85 | AY 2021-22: 86 |

- 4. Review Data review data to determine if goals and benchmarks are being met
 - a. Goal a was partially met
 - b. Goal b was met.
 - c. Goal c was met.
- **5. Improvement Plans for AY 2022-23 -** program changes and refinements made based on a review of the goals, assessments, and results.
 - a. Goal a changes and refinements:
 - Course content on materials and methods will continue to be refined. Exam questions will be refined to more specifically assess student knowledge to achieve this goal.
 - b. Goal b changes and refinements:



- i. ARCH 7102 is the result of a complete re-envisioning of the technology sequence and was designed specifically to address building integration. Future improvements relative to this goal will include lecture and course content refinements on structural components, details, and assemblies and how they relate to design.
- b. Goal c changes and refinements:
 - ARCH 7102 is the result of a complete re-envisioning of the technology sequence and was designed specifically to address building integration. Future improvements relative to this goal will include better alignment of lectures with the Phase 4 assignment.

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.

Program Response:

Synthesizing the knowledge gained through the curricular and extracurricular offerings of the SoA into intelligent, responsible, and creative design solutions is the highest priority of the M. Arch program. Throughout the curriculum, emphasis is placed on the multiple dimensions of architectural design from the creative and exploratory, the technical and regulatory, and the social and economic. While all design studios touch on aspects of this, the Portman Prize Studio is where a comprehensive approach to design synthesis is the focus. Students learn that architectural design is not a solo act and, while they are often the conductors of complex design teams, architects must have the ability to speak to many disciplines, value their input, and ultimately bring their collective efforts into a coordinated design.

ARCH 6040: Advanced Studio II (Portman Prize Studio)

The Portman Prize Design Studio is where students are introduced to integrated design that incorporates creative, social, technical, and regulatory factors into their design process with the objective of synthesizing these factors into their design solutions. The physical, social, and political dimensions of the program, site, and users are closely interrogated to provide a basis for design decisions. A deep understanding of materials, where they come from and how they are processed into building products, is a key aspect of the studio. Students also consider construction, structural, and environmental systems as key factors throughout their design process. Research workshops at the beginning of the studio, often led by outside experts, accelerate the learning process and provide students with the knowledge and tools to effectively explore these topics as part of their design process.

This studio is fully described in Section PC.2 Design.

ARCH 7103: Integrated Building Systems III

Integrated Building Systems III is the required culminating course in the M. Arch technology sequence that focuses on the ability to synthesize design, technical, and regulatory factors into the design of a small infill building. The working premise of the IBS III course is that the technical aspects of drawing, modeling, organizing, and integrating building systems within a set of contract documents are essential to achieving high quality design and effective building processes in professional practice.

- 1. Goals set goals for each PC & SC
 - a. Students will demonstrate knowledge of how to make design decisions that synthesize user requirements, regulatory requirements, site conditions, ecological concerns, and accessible design.



- Students will demonstrate knowledge of the environmental impact of their design decisions.
- Students will demonstrate knowledge of how to synthesize technical and regulatory constraints with design intent.
- Assessment Points identify the courses, activities, or other points where the assessment will occur
 - a. Primary
 - i. ARCH 6040: Advanced Studio II (Portman Prize Studio)
 - ii. ARCH 7103: Integrated Building Systems III
- 3. **Measures / Benchmarks** identify assessment measures and benchmarks for each measure. These measures map directly to the goals above.

| Goals | Assessment Measures | Benchmarks | Results |
|-------|---|---|------------------------------|
| а | ARCH 6040 Final Portman Jury survey question on student knowledge of how to make design decisions that synthesize user requirements, regulatory requirements, site conditions, ecological concerns, and accessible design | Average rating for all students of 3.5 or higher out of 5 | AY 2021-22: partially met |
| b | ARCH 6040 Final Portman Jury survey question on student knowledge of the environmental impact of their design decisions. | Average rating for all students of 3.5 or higher out of 5 | AY 2021-22: partially met |
| С | ARCH 7103 Final project jury survey question on student knowledge of how to synthesize technical and regulatory constraints with design intent | Average rating for all students of 3.5 or higher out of 5 | AY 2021-22: partially met |

- 4. Review Data review data to determine if goals and benchmarks are being met
 - a. Goal a was partially met.
 - This goal was included in the course syllabi and course content and discussed among the final jury and faculty but not quantitatively measured.
 - b. Goal b was partially met.
 - This goal was included in the course syllabi and course content and discussed among the final jury and faculty but not quantitatively measured.
 - c. Goal c was partially met.
 - This goal was included in the course syllabi and course content and discussed among the final jury and faculty but not quantitatively measured.
- **5. Improvement Plan for AY 2022-23 -** program changes and refinements made based on a review of the goals, assessments, and results.
 - a. Goal a changes and refinements:
 - i. Assessment measure will include a Qualtrics survey given to the final jury and will be tracked against a benchmark of 3.5 out of 5.
 - b. Goal b changes and refinements:
 - i. Assessment measure will include a Qualtrics survey given to the final jury and will be tracked against a benchmark of 3.5 out of 5.
 - c. Goal c changes and refinements:
 - i. Assessment measure will include a Qualtrics survey given to the final jury and will be tracked against a benchmark of 3.5 out of 5.



SC.6 Building Integration—How the program ensures that students develop the ability to make design decisions within architectural projects while demonstrating integration of building envelope systems and assemblies, structural systems, environmental control systems, life safety systems, and the measurable outcomes of building performance.

Program Response:

As mentioned above, the M. Arch technology sequence was re-envisioned in 2018-19 with the primary goal of shifting to a focus on building integration. The final three courses in the six-course sequence address this explicitly and teach students the critical relationships and interdependencies of construction, structural, and environmental building systems. Importantly, students are taught that technical systems, assemblies, and details are rich sources of ideas and should be considered as primary design drivers.

Another modification to the courses was to shift to a learn-by-doing instructional mode where students apply their knowledge from readings and lectures through drawings and models, the primary mode of production for architects. Students are immersed in case study buildings, several of which are local so that students can analyze them in person, as a learning tool. Through analysis, reverse-engineering, and reconstructing all or parts of these case studies, students gain a deep understanding of how buildings come together.

ARCH 7101: Integrated Building Systems I

This is the first in a series of three Integrated Building Systems courses that focus on technical issues of building design and systems integration. Each of these courses also incorporates topics of sustainability, building performance, and material assemblies. IBS I establishes core principles of environmental systems and structure through methodical calculation and simulation-based analysis and evaluation as a foundation for IBS II and IBS III, both of which are structured around construction assemblies, component geometry, and full systems integration.

The first module focuses on the environmental impact of buildings and the design of building systems to respond to the climate in which they are placed. The topic of the second module is building structure with a focus on lateral forces and the building systems used to resist them. Both modules utilize the <u>Kendeda Building for Innovative Sustainable Design</u> and have full access to all systems utilized in this unique building and spend hours analyzing how they operate holistically to achieve the performance goals of a Living Building.

Module 1 introduces students to the basics of equilibrium as a guiding principle for designing building systems. The module explores thermal and luminous environmental design in the context of architectural building systems. The course first focuses on the envelope as a fundamental system in defining a building and then explores how it integrates with other systems that include active mechanical systems, plumbing, electrical systems, and lighting into a unified ecosystem. Students learn to connect performance analysis with design through Building Performance Simulation (BPS).

Module 2 focuses on lateral forces in building structures and how life safety is ensured under extreme wind and seismic loading. The module builds awareness of the coordination required between architects and structural engineers in the design and integration of lateral force resisting systems into buildings. Students do an assessment of the lateral force demand from code-specified wind and earthquake loading on buildings in multiple locations in the United States and select and proportion lateral force resisting systems (LFRS) for those loads. This is followed by an assignment where students select and document an alternative lateral force resisting system for the Kendeda Building.

ARCH 7102: Integrated Building Systems II



IBS II is the second of three sequential courses that address technical issues of building design, structure, environmental, electrical, plumbing, and life safety systems integration. Emphasis is placed on the integration and scalar relationships from building components to building assemblies to entire buildings. The course is described in more detail in Section SC.4 Technical Knowledge.

ARCH 7103: Integrated Building Systems III

While IBS II is about understanding the technical aspects of significant completed works of architecture through the analysis, interpretation, and making of detailed construction drawings, IBS III focuses on the ability to apply that knowledge to the design of a small infill building, including material selections, designing construction assemblies, structural systems calculations, and MEP systems layout.

Students learn that it is not uncommon in contemporary practice for a medium-sized project to have a dozen consultants in addition to the architect. It is the architect's responsibility to ensure design integration across disciplines, manage these consultants, and organize their work into digital models and workflows to produce a set of coordinated construction drawings. These disciplines might include structure, mechanical, electrical, plumbing, fire protection, environmental (LEED), civil, geotechnical, landscape, audio visual, IT, acoustic, lighting, façade, and waterproofing, plus any number of additional specialty consultants.

- 1. Goals set goals for each PC & SC
 - a. Students will demonstrate knowledge of how to integrate building envelope systems and assemblies, structural systems, environmental control systems, and life safety systems into design solutions. (6040)
 - b. Students will demonstrate knowledge of how to use rules-of-thumb and simulation tools for environmental performance (7101)
 - c. Students will demonstrate knowledge of how mechanical, electrical, lighting, plumbing, and life safety systems are integrated into architectural design. (7103)
- Assessment Points identify the courses, activities, or other points where the assessment will occur
 - a. Primary
 - i. ARCH 6040: Advanced Studio II (Portman Prize Studio)
 - ii. ARCH 7103: Integrated Building Systems III
 - b. Secondary
 - i. ARCH 7101: Integrated Building Systems I
 - ii. ARCH 7102: Integrated Building Systems II
- 3. **Measures / Benchmarks / Results** identify assessment measures and benchmarks for each measure. These measures map directly to the goals above.

| Goals | Assessment Measures | Benchmarks | Results |
|-------|---|---|------------------------------|
| a | Faculty review of graduating student portfolios: rubric rating on student knowledge of the integration of building envelope systems and assemblies, structural systems, environmental control systems, and life safety systems into design solutions. | Average rating for all students of 3.5 or higher out of 5 | AY 2021-22: partially met |
| b | ARCH 7101 Exam on student knowledge of how to use rules-of-thumb and simulation tools for environmental performance | 85% pass rate | AY 2021-22: 95 |



| С | Faculty review of graduating student portfolios: rubric rating on student knowledge of how mechanical, electrical, lighting, plumbing and life safety systems are integrated into architectural design | Average rating for all students of 3.5 or higher out of 5 | AY 2021-22: partially met |
|---|--|---|------------------------------|
|---|--|---|------------------------------|

- 4. Review Data review data to determine if goals and benchmarks are being met
 - a. Goal a was partially met:
 - i. This goal was included in the course syllabi and course content and discussed among the faculty but not quantitatively measured.
 - b. Goal b was met.
 - c. Goal c was partially met:
 - i. This goal was included in the course syllabi and course content and discussed among the faculty but not quantitatively measured.
- **5. Improvement Plans for AY 2022-23 -** program changes and refinements made based on a review of the goals, assessments, and results.
 - a. Goal a changes and refinements:
 - i. Assessment measure will include a Qualtrics survey given to the final jury and will be tracked against a benchmark of 3.5 out of 5.
 - b. Goal b changes and refinements:
 - i. Expand the analytical techniques taught to include measuring building performance using thermal imaging and introduce basic simulation tools.
 - c. Goal c changes and refinements:
 - i. Assessment measure will include a Qualtrics survey given to the final jury and will be tracked against a benchmark of 3.5 out of 5.



4—Curricular Framework

This condition addresses the institution's regional accreditation and the program's degree nomenclature, credit-hour and curricular requirements, and the process used to evaluate student preparatory work.



4.1 Institutional Accreditation

The APR must include a copy of the most recent letter from the regional accrediting commission/agency regarding the institution's term of accreditation.

Program Response:

The Georgia Institute of Technology is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award baccalaureate, masters, and doctoral degrees.

A letter dated December 8, 2017, serves as formal notification and official record of action taken by the Southern Association of Colleges and Schools Commission on Colleges. The date of this action constitutes the institution's accreditation was reaffirmed in 2015. The next decennial reaffirmation of accreditation is scheduled for 2025.





December 8, 2017

Dr. G. P. Peterson President Georgia Institute of Technology Carnegie Building 223 North Avenue, N.W. Atlanta, GA 30332-0325

Dear Dr. Peterson:

This letter verifies that **Georgia Institute of Technology** is accredited by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) to award baccalaureate, master's, and doctoral degrees. The institution's main campus is 225 North Avenue, N.W., Atlanta, GA 30332-0325.

The institution is not on sanction.

The institution's accreditation was reaffirmed in 2015. The next decennial reaffirmation of accreditation is scheduled for 2025.

Sincerely

Kevin W. Sightler, Ph. Director of Substantive Change

KWS:efk

cc: Dr. Loraine Phillips, Associate Provost for Academic Effectiveness

Dr. Nuria M. Cuevas

1866 Southern Lane • Decatur, Georgia 30033-4097 • Telephone 404/679-4500 • Fax 404/679-4558 www.sacscoc.org



The NAAB accredits professional degree programs with the following titles: the Bachelor of Architecture (B. Arch.), the Master of Architecture (M. Arch), and the Doctor of Architecture (D. Arch.). The curricular requirements for awarding these degrees must include professional studies, general studies, and optional studies.

4.2.1 Professional Studies. Courses with architectural content required of all students in the NAAB-accredited program are the core of a professional degree program that leads to licensure. Knowledge from these courses is used to satisfy Condition 3—Program and Student Criteria. The degree program has the flexibility to add additional professional studies courses to address its mission or institutional context. In its documentation, the program must clearly indicate which professional courses are required for all students.

Programs must include a link to the documentation that contains professional courses are required for all students.

Program Response:

The maximum load for graduate students in good standing is 21 hours in fall/spring and 16 hours in summer. The minimum load is three hours, except for the semester of graduation. During the semester of graduation, a student is permitted to register for only one hour of master's or doctoral thesis courses (7000 or 9000). This exception may be used only once for each degree. At Georgia Tech, graduate programs of study must be completed satisfactorily within six consecutive calendar years and must include, at a minimum, 30 approved credit hours distributed as follows: (18 credits) minimum course credit hours in major field (a basic field of knowledge, not a department of specialization) and (12 credits) minimum course credit hours at 6000 to 9000 level.

The M. Arch. program requires a minimum of 60 credit hours and a maximum of 102 credit hours of study, depending upon the applicant's prior education in architecture and the amount of advanced standing credit granted upon admission to the program. Normally, a student admitted to the program with maximum advanced standing can expect to complete the program within two academic years of full-time study. A student admitted to the program with no advanced standing can expect the program to require three and one-half academic years of full-time study. Graduates from four-year preprofessional undergraduate programs in architecture like that at Georgia Tech can normally expect to complete the program in two academic years, provided they have pursued architecturally related elective coursework during their undergraduate years. Specific information regarding applications for advanced standing and degree requirements is available from the School of Architecture.

Below are the required professional studies courses for the 3.5-Year Master of Architecture students in their first three semesters of the program:

| Course | Credits |
|---------------------------------------|---------|
| ARCH 6028: Core Studio I | 5 |
| ARCH 6029: Core Studio II | 5 |
| ARCH 6030: Core Studio III | 5 |
| ARCH 6010: Media + Modeling I | 3 |
| ARCH 6020: Media + Modeling II | 3 |
| ARCH 6105: History of Architecture I | 3 |
| ARCH 6106: History of Architecture II | 3 |
| ARCH 6229: Construction Technology I | 3 |
| ARCH 6531: Environmental Systems I | 3 |
| ARCH 6015: Structures I | 3 |

The 3.5-Year students then merge with the incoming 2-Year Master of Architecture students. Below are the required professional studies courses for both programs:

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| Course | Credits |
|--|---------|
| ARCH 6039: Advanced Studio I | 6 |
| ARCH 6040: Advanced Studio II (Portman Prize Studio) | 6 |
| ARCH 6049: Design + Research Studio I | 6 |
| ARCH 6050: Design + Research Studio II | 6 |
| ARCH 7530: Theory I | 3 |
| ARCH 7030: Media + Modeling III | 3 |
| ARCH 7101: Integrated Building Systems I | 3 |
| ARCH 7102: Integrated Building Systems II | 3 |
| ARCH 7103: Integrated Building Systems III | 3 |
| ARCH 7360: Design and Climate Change | 3 |
| ARCH 6315: Practice of Architecture I | 3 |
| ARCH 7151: History of Urban Form | 3 |

4.2.2 General Studies. An important component of architecture education, general studies provide basic knowledge and methodologies of the humanities, fine arts, mathematics, natural sciences, and social sciences. Programs must document how students earning an accredited degree achieve a broad, interdisciplinary understanding of human knowledge.

In most cases, the general studies requirement can be satisfied by the general education program of an institution's baccalaureate degree. Graduate programs must describe and document the criteria and process used to evaluate applicants' prior academic experience relative to this requirement. Programs accepting transfers from other institutions must document the criteria and process used to ensure that the general education requirement was covered at another institution.

Programs must state the minimum number of credits for general education required by their institution <u>and</u> the minimum number of credits for general education required by their institutional regional accreditor.

Program Response:

As a graduate program, there are no requirements for general studies because this requirement has been met through earning a prior baccalaureate degree.

The Institute Graduate Curriculum Committee, with the approval of the Academic Faculty Senate, is responsible for establishing academic policy for the graduate programs; however, final authority rests with the Senate. This committee reserves the right to change requirements for degrees as may be appropriate.

4.2.3 Optional Studies. All professional degree programs must provide sufficient flexibility in the curriculum to allow students to develop additional expertise, either by taking additional courses offered in other academic units or departments, or by taking courses offered within the department offering the accredited program but outside the required professional studies curriculum. These courses may be configured in a variety of curricular structures, including elective offerings, concentrations, certificate programs, and minors.

The program must describe what options they provide to students to pursue optional studies both within and outside of the Department of Architecture.

Program Response:

The 3.5-year Master of Architecture program includes six (6) professional electives (18 credit hours): one must be a theory-focused elective to fulfill Theory II requirement and one must be a practice-focused elective to fulfill the Practice II requirement.



The 2-year Master of Architecture program includes four (4) professional electives (12 credit hours): one must be a theory-focused elective to fulfill Theory II requirement and one must be a practice-focused elective to fulfill Practice II requirement.

NAAB-accredited professional degree programs have the exclusive right to use the B. Arch., M. Arch, and/or D. Arch. titles, which are recognized by the public as accredited degrees and therefore may not be used by non-accredited programs.

Programs must list all degree programs, if any, offered in the same administrative unit as the accredited architecture degree program, especially pre-professional degrees in architecture and post-professional degrees.

Program Response:

The School of Architecture encompasses five distinct degree programs, a reflection of the school's multiple missions in undergraduate education, professional education, and advanced studies & research.

- Bachelor of Science in Architecture
- Master of Architecture
- Master of Science in Architecture
- Master of Science in Urban Design
- Doctor of Philosophy in Architecture

The number of credit hours for each degree is outlined below. All accredited programs must conform to minimum credit-hour requirements established by the institution's regional accreditor. Programs must provide accredited degree titles, including separate tracks.

4.2.4 Bachelor of Architecture. The B. Arch. degree consists of a minimum of 150 semester credit hours, or the quarter-hour equivalent, in academic coursework in general studies, professional studies, and optional studies, all of which are delivered or accounted for (either by transfer or articulation) by the institution that will grant the degree. Programs must document the required professional studies courses (course numbers, titles, and credits), the elective professional studies courses (course numbers, titles, and credits), the required number of credits for general studies and for optional studies, and the total number of credits for the degree.

Program Response:

Not applicable

4.2.5 Master of Architecture. The M. Arch degree consists of a minimum of 168 semester credit hours, or the quarter-hour equivalent, of combined undergraduate coursework and a minimum of 30 semester credits of graduate coursework. Programs must document the required professional studies classes (course numbers, titles, and credits), the elective professional studies classes (course numbers, titles, and credits), the required number of credits for general studies and for optional studies, and the total number of credits for both the undergraduate and graduate degrees.

Program Response:

The SoA, offers the following paths to a Master of Architecture degree:

 Master of Architecture, 2-yr track (pre-professional degree in Architecture + 60 credits required) for those with four-year, pre-professional degrees in architecture and receiving full advanced standing. An admission checklist is used to review transcripts for necessary prerequisites and appropriate placement in coursework.



Master of Architecture, 3.5-yr track (non-pre-professional degree + 102 credits required) for those with prior undergraduate degrees in disciplines other than architecture or receiving no or partial advanced standing. The SoA actively recruits and accepts graduate students with a diversity of academic backgrounds, including architecture, art history, engineering, political science, biology, literature, science, among others.

The program of study leading to the M. Arch degree provides flexibility both for students who have an undergraduate degree with a major in architecture and those who have a degree in a field other than architecture. The curriculum of study is comprised of preparatory, professional, and elective requirements.

Preparatory requirements include a minimum of three semesters of architecture design studios, two semesters of architecture history and theory, and four semesters of architectural technology. Students may be granted advanced standing for any or all these courses, depending on their individual educational backgrounds.

Professional requirements of the curriculum include the major components of architectural design, architectural history, theory, architectural technology, professional and social practice, visual arts and design computing, and design and research studios. Except for design studios, each of these areas require specific courses.

Electives, comprised of a maximum of 18 semester hours, round out the M. Arch curriculum requirements.

The M. Arch Program requires a minimum of 60 semester hours and a maximum of 102 hours of study, depending upon the amount of advanced standing credit granted upon admission to the program. Normally, a student admitted to the program with full advanced standing finishes within two academic years. A student admitted to the program with no advanced standing can expect the program to require three and one-half academic years of study.

3.5-year Master of Architecture Program

The following is the typical schedule for those entering the M. Arch program with no advanced standing. The required course of study is determined on an individual basis and is based upon a review of the student's application, transcripts, portfolio, and request for advanced standing. The maximum program length is 102 semester hours (7 semesters).

Students entering the 3.5-year M. Arch program begin in the late-short summer term following admission, and will matriculate in summer, fall, and spring of the first year and then fall and spring in the years to follow. Below is the schedule without advanced placement.



MASTER OF ARCHITECTURE 3.5 YEAR CURRICULUM

YEAR 1

Summer - Late Short Session

| Course | Credits |
|--------------------------------|---------|
| ARCH 6028 - Core Studio I | 5 |
| ARCH 6010 – Media + Modeling I | 3 |
| Total Semester Hours | 8 |

* Practice-Focused Elective - 6000, 7000, or 8000 level ** Professional Elective - 6000, 7000, or 8000 level in CoD *** Theory-Focused Elective - Any ARCH 6352 Course

Fall

Course Credits ARCH 6029 - Core Studio II 5 ARCH 6105 - Structures I 3 ARCH 6229 - Construction Technology I 3 ARCH 6105 - Architectural History I 3 ARCH 6020 - Media + Modeling II 3 Total Semester Hours 17

Spring

| Course | Credits | |
|--------------------------------------|---------|--|
| ARCH 6030 - Core Studio III | 5 | |
| ARCH 6106 – Architectural History II | 3 | |
| ARCH 6531 - Environmental Systems I | 3 | |
| Professional Elective ** | 3 | |
| Professional Elective ** | 3 | |
| Total Semester Hours | 17 | |

YEAR 2

Fall Course Credits ARCH 6039 – Advanced Studio I 6 ARCH 7350 – Foundations of Architectural Theory I 3 ARCH 7030 – Media + Modeling III 3 ARCH 7101 – Integrated Building Systems I 3 Total Semester Hours 15

Spring

| Total Semester Hours | 15 |
|--|-------|
| Professional Elective ** | 3 |
| ARCH 8803 – Design and Climate Change | 3 |
| ARCH 7102 – Integrated Building Systems II | 3 |
| ARCH 6040 – Advanced Studio II (Portman Prize) | 6 |
| Course Cr | edits |

YEAR 3

FallCourseCreditsARCH 6049 – Design + Research Studio I6ARCH 7103 – Integrated Building Systems III3ARCH 6315 – Practice of Architecture I3Professional Elective **3Total Semester Hours15

Spring

| -1- 3 | |
|---|---------|
| Course | Credits |
| ARCH 6050 – Design + Research Studio II | 6 |
| ARCH 7151 - History of Urban Form | 3 |
| Practice-Focused Elective * | 3 |
| Theory-Focused Elective *** | 3 |
| Total Semester Hours | 15 |



2-year Master of Architecture Program

Below is a typical schedule for those students entering the M. Arch program with an undergraduate degree in the discipline of architecture and who were admitted with full advanced standing. These students begin their studies at the second-year studio level. The required course of study is determined on an individual basis and is based upon a review of the student's application, transcripts, portfolio, and request for advanced standing. The minimum program length is 60 semester hours.

The actual number of professional elective requirements is dependent upon the student's level of advanced standing for qualifying requirements previously completed. The minimum number of professional electives for the M. Arch degree is 12 semester hours. Placement out of required professional core courses more than 18 semester hours will require an equivalent increase in the number of professional electives required to obtain the degree minimum of 60 semester hours.

MASTER OF ARCHITECTURE 2 YEAR CURRICULUM

YEAR 1

| Fall | | Spring | |
|--|---------|--|--------|
| Course | Credits | Course | redits |
| ARCH 6039 - Advanced Studio I | 6 | ARCH 6040 - Advanced Studio II (Portman Prize) | 6 |
| ARCH 7350 – Foundations of Architectural Theor | y I 3 | ARCH 7102 – Integrated Building Systems II | 3 |
| ARCH 7030 – Media + Modeling III | 3 | ARCH 8803 – Design and Climate Change | 3 |
| ARCH 7101 – Integrated Building Systems I | 3 | Professional Elective ** | 3 |
| Total Semester Hours | 15 | Total Semester Hours | 15 |

YEAR 2

| Total Semester Hours | 15 | Total Semester Hours | 15 |
|---|---------|---|---------|
| Professional Elective ** | 3 | Theory-Focused Elective *** | 3 |
| ARCH 6315 – Practice of Architecture I | 3 | Practice-Focused Elective * | 3 |
| ARCH 7103 – Integrated Building Systems III | 3 | ARCH 7151 - History of Urban Form | 3 |
| ARCH 6049 – Design + Research Studio I | 6 | ARCH 6050 – Design + Research Studio II | 6 |
| Course | Credits | Course | Credits |
| Fall | | Spring | |

^{*} Practice-Focused Elective - 6000, 7000, or 8000 level

^{**} Professional Elective - 6000, 7000, or 8000 level in CoD

^{***} Theory-Focused Elective - Any ARCH 6352 Course



4.2.6 Doctor of Architecture. The D. Arch. degree consists of a minimum of 210 credits, or the quarter-hour equivalent, of combined undergraduate and graduate coursework. The D. Arch. requires a minimum of 90 graduate-level semester credit hours, or the graduate-level 135 quarter-hour equivalent, in academic coursework in professional studies and optional studies. Programs must document, for both undergraduate and graduate degrees, the required professional studies classes (course numbers, titles, and credits), the elective professional studies classes (course numbers, titles, and credits), the required number of credits for general studies and for optional studies, and the total number of credits for the degree.

Program Response:

Not applicable

4.3 Evaluation of Preparatory Education

The NAAB recognizes that students transferring to an undergraduate accredited program or entering a graduate accredited program come from different types of programs and have different needs, aptitudes, and knowledge bases. In this condition, a program must demonstrate that it utilizes a thorough and equitable process to evaluate incoming students and that it documents the accreditation criteria it expects students to have met in their education experiences in non-accredited programs.

4.3.1 A program must document its process for evaluating a student's prior academic coursework related to satisfying NAAB accreditation criteria when it admits a student to the professional degree program.

See also Condition 6.5

Program Response:

Incoming students for the 3.5-yr program must have a bachelor's degree from an accredited college or university. Incoming students for the 2-yr program must have a pre-professional degree in architecture.

Graduate student applicants are evaluated by a School of Architecture graduate admissions committee. All applicants are reviewed by at least two faculty members and are evaluated based on academic record, portfolios, recommendation letters, statement of interest, and relevant experience. In 2020, the GRE was made optional and remains so in the 2021-23 admission review cycles.

When the school accepts prior courses for credit against one of our required courses, the applicant is asked to submit the prior course syllabus and work samples that are reviewed by our academic advisor and faculty members who teach the required course. The applicant must have received a B or better in the prior course and the work samples must match the level of competency demonstrated by students who have taken the equivalent course at Georgia Tech. This process is described in more detail in section 4.3.2 below.

4.3.2 In the event a program relies on the preparatory education experience to ensure that admitted students have met certain accreditation criteria, the program must demonstrate it has established standards for ensuring these accreditation criteria are met and for determining whether any gaps exist.

Program Response:

At the time of application to the M. Arch program, all incoming student transcripts are evaluated for possible advanced placement for those pre-professional and professional courses taken as undergraduates that may satisfy requirements for the Master of Architecture degree. Except in the case of transfer credit for courses (up to six credit hours) not counted toward their previous

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degrees, the granting of advanced placement for pre-professional and professional course work does not reduce the student's course of study below the Georgia Tech minimum of 60 credit hours for the M. Arch degree. Each applicant accepted into the M. Arch Program is evaluated for advanced standing according to the following policies:

- Advanced standing may be awarded only for the required courses listed on the Master of Architecture: Typical 3.5-year program found in Section 4.2.5
- The applicant must provide the following information for each course for which advanced standing is being requested:
 - o course number as it appears on the student's transcript
 - o name of the college or university where the course was taken
 - the grade received in the course (A, B, C, only; grades below C are not accepted)
 - o the date course was taken (e.g., Spring 2012)
 - the basis of the course academic quarter or academic semester
 - the number of credit hours awarded for the course.
- If advanced standing is requested in lecture and seminar courses, copies of catalog descriptions and course syllabi must be attached for the relevant courses.
- Advanced standing in architectural studios is considered only when the applicant's portfolio clearly documents the projects in the studios for which advanced standing is requested. The full 1½ years of advanced standing in studios is awarded only to those students who have graduated with an undergraduate degree in architecture from an undergraduate program at a school whose graduate degree in architecture is fully accredited by the NAAB or the foreign equivalent, who have had a minimum of three academic years of architectural design studios beyond the freshman year, and who demonstrate a significant level of design achievement in the portfolio. Students do not receive advanced standing for studio courses in which the grade was lower than B.

This process is documented on the Advanced Placement Approval Form and placed in the student's academic file. This information is then used to develop an individualized curriculum plan for the student, to be used as a guide during the registration process each semester.



Georgia Tech School of Architecture

COURSE EQUIVALENCY ASSESSMENT FORM

'-for students entering the Master of Architecture (3.5 and 2-year program)

FALL 2021 ENTERING CLASS

| Name | | College/University | Major | |
|----------------------------|----------|--------------------|-------|--|
| Graduate Student Status | 3.5yr | | | |
| Undergraduate Credit Hours | Arch | | | |
| | Non-Arch | | | |

| Architecture Courses | | | | | | |
|----------------------|-------|-----------------------------|-------------------------|------------------|------|--------------------------------|
| Course Number/Name | Grade | GT SoA Course Equivalent | Student Criteria Met | Course Evaluator | Date | Signature of Faculty Evaluator |
| | | | SC1 | | | |
| | | | SC1 | | | |
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| Required to Take: No Placement | SCmet | SCmet |
|--------------------------------|-------|-------|
| ARCH 6039: Advanced Studio I | SC5 | |
| ARCH 6040: Advanced Studio II | SC5 | SC6 |
| ARCH 7102: IBS II | SC6 | |
| ARCH 7103: IBS III | SC6 | |

| NOTES: | |
|---|---------------------|
| `-Student Criteria for each ARCH course must be reviewed before approval and stored with course syllabus in the student's file. | ith this form along |
| '-Minimum Grade for course equivalency: B | |

A program plan is included with other orientation materials prior to fall registration indicating which courses are required, those for which the student has received advanced placement, and those for which further information is required to verify the correspondence between previous course work and the required courses at Georgia Tech. This process fully informs each student of his or her curriculum requirements prior to matriculation.

4.3.3 A program must demonstrate that it has clearly articulated the evaluation of baccalaureate-degree or associate-degree content in the admissions process, and that a candidate understands the evaluation process and its implications for the length of a professional degree program before accepting an offer of admission.

Program Response:

For graduate applicants to Georgia Tech, verification of credentials and certification of compliance with Institute policies is the responsibility of the Office of Graduate Admissions. Policies and procedures that are approved by the Office of the President, Board of Regents of the University System of Georgia, and the Academic Senate of the Institute shall be applied in determining eligibility for consideration for graduate study. From those eligible candidates, recommendations for final admission decisions shall be the responsibility of the admitting



department, while initial admission is decided by the Institute Graduate Admissions. https://catalog.gatech.edu/admissions/grad/general-information/

The School of Architecture requirements for application to the M. Arch program can be found here:

- https://grad.gatech.edu/degree-programs/master-architecture-professional-program
- https://arch.gatech.edu/graduate-admissions
- https://arch.gatech.edu/preparing-your-application
- https://arch.gatech.edu/grad-portfolio-guidelines



5—Resources



5.1 Structure and Governance

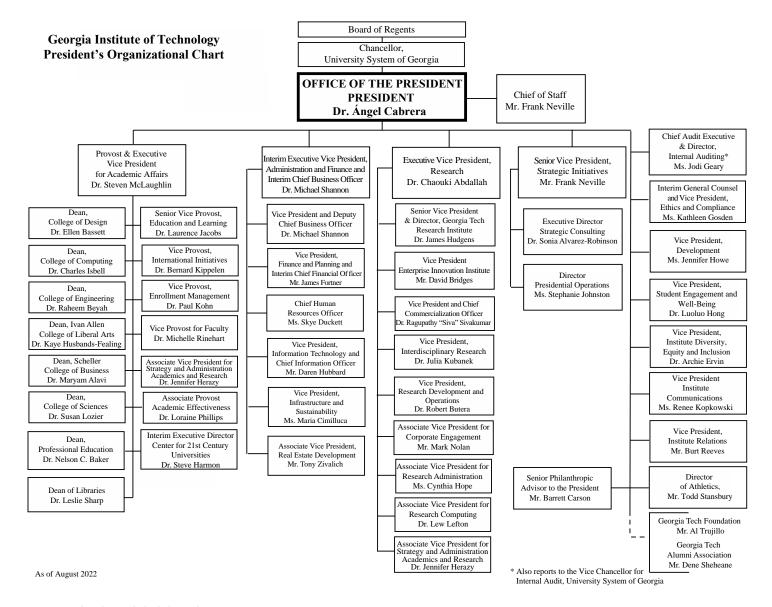
The program must describe the administrative and governance processes that provide for organizational continuity, clarity, and fairness and allow for improvement and change.

5.1.1 Administrative Structure: Describe the administrative structure and identify key personnel in the program and school, college, and institution.

Program Response:

The SoA M. Arch program is led by a program director who reports directly to the School Chair. The M. Arch program director also works closely with the directors of the other four programs within the school through monthly meetings with the Chair to address school-wide issues. The Chair of the School is one of five Chairs in the College of Design and all Chairs report to the Dean of the College who reports to the Provost. The SoA transitioned to a new Chair and Associate Chair at the beginning of the 2022-23 academic year.

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Institute Administration

- President: Ángel Cabrera
- Executive Vice President for Research: Chaouki T. Abdallah
- Provost and Executive Vice President for Academic Affairs: Steven McLaughlin
- Senior Vice Provost for Education and Learning: Laurence Jacobs
- Vice Provost for Faculty: Michelle Rinehart
- Vice Provost for International Initiatives: Bernard Kippelen
- Vice Provost for Graduate and Post-Doctoral Education: Bonnie Ferri
- Vice Provost for Undergraduate Education: Steven Girardot
- Associate Provost for Academic Effectiveness: Loraine Phillips

College of Design Administration

- Dean: Ellen Bassett
- Associate Dean for Faculty Development: Russell Gentry
- Associate Dean for Research: Nancey Green Leigh



Associate Dean for Academic Affairs: TBD

• College Administrative Officer: Alan Harrison

• Director of Human Resources: Twyla Moore

Director of Operations (Facilities): Bryan Croy

Director of Design Shops: Tripp Edwards

School of Architecture Administration (2022 - present)

The School of Architecture is led by the School Chair and Associate Chair who are responsible for all financial and academic matters. The SoA is supported by three dedicated administrative staff members with supplemental support from the college administrative staff. The Chair reports to the Dean of the College.

School Chair: Ingeborg Rocker

Associate Chair: TBD

• Administrative Manager: Isra Hassan

Academic Advising Manager: Robin Tucker

Academic Advisor II: Shaunitra Wisdom

Digital Fabrication Lab Manager: Christopher Simon

School of Architecture Leadership (2015 - 2022)

• School Chair: Scott Marble

Associate Chair: Julie Ju-Youn Kim

School of Architecture Program Directors (2022 - present)

The School of Architecture has five degree programs plus a dual degree with the School of City and Regional Planning. Each program has a director who is responsible for the administrative leadership of their program. The program directors and school chair and associate chair work closely together and meet monthly.

Bachelor of Science in Architecture: TBD

• Master of Architecture: TBD

Master of Science in Architecture: TBD

Master of Science in Urban Design: Ellen Dunham-Jones

Doctor of Philosophy: Sonit Bafna

SoA Program Directors (2015 – 2022)

• Bachelor of Science in Architecture: Julie Ju-Youn Kim

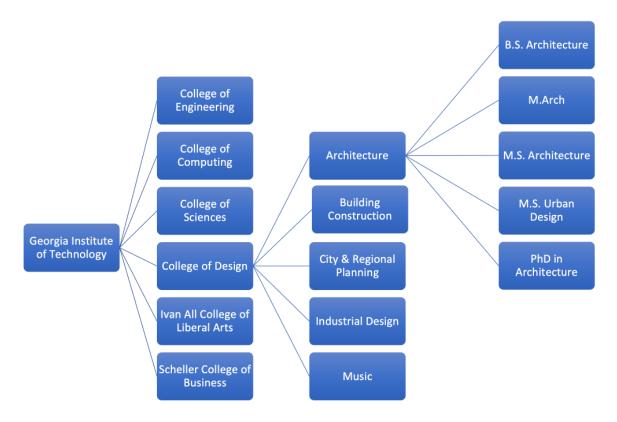
Master of Architecture: Michael Gamble

Master of Science in Architecture: Russell Gentry

Master of Science in Urban Design: Ellen Dunham-Jones

Doctor of Philosophy: Sonit Bafna





5.1.2 Governance: Describe the role of faculty, staff, and students in both program and institutional governance structures and how these structures relate to the governance structures of the academic unit and the institution.

Program Response:

Institute-level

Section 2 in the Faculty Handbook outlines the Faculty Governance structure followed by each of the academic units. The Faculty of the Institute comprises the Academic Faculty, the Research Faculty, and designated Administrative Officers as defined below. The faculty is granted the right and responsibility of its own governance; the governance of Students; the creation of such committees as may be required; the prescribing of regulations regarding admission, suspension, expulsion, discipline, scholarship, classes, courses of study, and requirements for graduation; and the creation of such other regulations as may be necessary or proper for the maintenance of high educational standards.

To fulfill these responsibilities, the faculty establishes the following bodies: the Faculty Executive Board, the Academic Faculty, the Research Faculty, the Academic Faculty Senate, and the Research Faculty Senate. Some matters will require the Academic Faculty Senate and Research Faculty Senate to meet in joint session which will be termed a meeting of the Faculty Senate. Some matters will require a meeting of the whole Faculty comprising the Academic Faculty, Research Faculty, and designated Administrative Officers. Joint meetings of the Faculty Executive Board and the Georgia Tech Staff Council may be held from time to time for business appropriate to such a gathering.

Limitations on Participation in Faculty Governance

Participants in faculty governance are called on to make long range decisions on behalf of the Institute. Persons elected to serve on faculty bodies typically serve terms of three years. Therefore, participation in faculty governance is appropriate for those with long term



commitments to the Institute and those having the time to devote to faculty governance. Accordingly, the following restrictions will be made:

- Personnel with titles designated as Temporary or Visiting, or having other limited term appointments, will not be eligible to participate in faculty governance.
- Persons holding only adjunct appointments or other honorary titles shall not be considered to be members of the faculty per <u>Board of Regents Policy Manual 3.2.1.1</u>.
- Only persons serving the Institute at least 0.75 full-time equivalent (FTE) in eligible
 positions as defined herein shall qualify to participate in faculty governance, unless
 otherwise approved by the Faculty Executive Board or specified by the Statutes.
 Individuals who would otherwise fall into this category but are temporarily employed less
 than 0.75 FTE or on leave of absence would be suspended from participation in faculty
 governance for the duration of that situation.

School-level

SoA faculty are involved in the governance of the school through committees, task forces, faculty meetings and retreats, and through leadership roles such as program directors and studio coordinators. There is also an open line of communication between faculty and school leadership. Extended meetings/retreats of all faculty and staff of the SoA are held at the beginning and end of each semester. These meetings are used to update faculty on all school matters including faculty searches, enrollment, planned events, college and Institute updates, faculty awards and accomplishments, committee updates, and any other items of importance. Each program director provides updates on the progress of their respective programs. Each meeting is typically divided into two parts – updates, followed by a more extended discussion on curricular matters.

Program directors are appointed by the School Chair and oversee all matters related to the curriculum for each of their respective programs. Program directors meet regularly with the Chair and Associate Chair to review program-specific matters. Those items requiring a discussion with the full faculty are brought forward in the regular faculty meetings. If more immediate attention is required, a special meeting will be called.

School committees and task forces include faculty, staff, and students. Task forces are appointed by the School Chair to review and recommend specific actions related to focused areas of the curriculum. Task forces are generally two-semester efforts with a mid-report shared in the December faculty meeting and a final report in the April faculty meeting.

Sample Task Forces (2016 – 2022) related to the professional degree program

- Building Technology Sequence:
 - Outcome: the re-design and implementation of the Integrated Building Technology sequence
- Media + Modeling:
 - Outcome: refinement of the three-course sequence to better align with the expected learning outcomes
- History + Theory:
 - Outcome: review of the required history of architecture sequence and refinement of the required theory I course
- Pro-Practice:
 - Outcome: introduction of two Professional Practice II electives which all M Arch students must choose one to take

Standing committees in the SoA include the following:

- Reappointment, Promotion, and Tenure Committee
- Diversity and Inclusion Committee
- Faculty Advisory Committee, renewed August 2022 with elections of the following members for two-year terms:
 - o Full Professor: George B. Johnston



- Associate Professor: Sonit Bafna
- Assistant Professor: Vernelle A.A. Noel
- Faculty at-large: Brian Bell (elected from and by the entire cohort of full-time and part-time teaching faculty holding professorial titles as well as the titles of Academic Professional, Lecturer, and Instructor)

Faculty are involved in College-level committees as well and include the following:

- Reappointment, Promotion, and Tenure Committee
- Curriculum Committee
- Diversity and Inclusion Council (includes staff and students)
- Dean's Advisory Committee

At the level of the Institute, the SoA faculty are represented on each of the following governance bodies:

- Faculty Executive Board
- Academic Faculty Senate
- Faculty Council on Accreditation
- Student Honor Committee
- Undergraduate Curriculum Committee
- Graduate Curriculum Committee
- Faculty Status and Grievance Committee

Staff:

The SoA staff have weekly meetings with the Chair and Associate Chair and play an active role in shaping and reviewing logistics related to overall program-related matters. Staff participate in the regular faculty meetings/retreats and are also involved in School-level committees and task forces.

Students:

Students are elected by their peers to represent their class as members of the Undergraduate or Graduate Student Advisory Councils. This council meets with the Chair and Associate Chair monthly to discuss and review matters related to their respective programs. Within the undergraduate program, students from each college serve on the Vice Provost for Undergraduate Education's Student Advisory Board; the current representative is from the B.S. Architecture program. There is not an equivalent structure within the Institute for graduate students.

At the institutional level, the Student Government Association (SGA) has a seat for an architecture student within the Undergraduate House of Representatives and there are three seats within the College for the Graduate Student Senate. Currently, a M. Arch student occupies one of these seats.

Student leaders of the student organizations - AIAS, EQiA, NOMAS, ECO, and Concave – have regular contact with the SoA leadership.

5.2 Planning and Assessment

The program must demonstrate that it has a planning process for continuous improvement that identifies:

5.2.1 The program's multiyear strategic objectives, including the requirement to meet the NAAB Conditions, as part of the larger institutional strategic planning and assessment efforts.

Program Response:

NVB

The Master of Architecture program has gone through a significant curricular transition over the past seven years that built on the successful aspects of the program already in place. The following strengths and areas for improvement, within the curriculum and the support structure around the program, were identified through an assessment by the then new Chair Scott Marble and Associate Chair Julie Ju-Youn Kim in discussion with the faculty:

- Strengths
 - The vision behind the Design & Research studios as the culminating studio experience for M. Arch students
 - The reputation of the Portman Prize Studio and Portman Prize Critic
 - o The reputation of the Ventulett Chair position
 - o Digital Fabrication Lab (DFL) as a resource
 - o Technology courses
 - o Student diversity
- Areas for Improvement
 - o Updating the technology sequence with a focus on building integration
 - Leveraging the Portman Prize Studio and the impact of the invited Portman Prize Critic
 - o History/theory curriculum
 - o Integrating DFL into the M. Arch curriculum
 - o Increase coverage of issues around climate change
 - o Student recruitment
 - Involvement of local professionals in teaching

As a key part of understanding the strengths, identity, and strategic goals for the program, an outside consultant firm was retained in 2019 to work with the SoA to develop a strategic plan, with a focus on student recruitment. This process took place over seven day-long workshops between August and December 2019 with the SoA leadership team along with student and staff representatives. This effort resulted in two documents, "Georgia Tech Target Audience Research Report" and "Creating Brand and Identity, Telling the Story of the Graduate Programs in the School of Architecture." Through the many days of discussions among the SoA team led by an effective external facilitator, a clear picture of the M. Arch program emerged relative to its current strengths and limitations along with future aspirations and positioning.

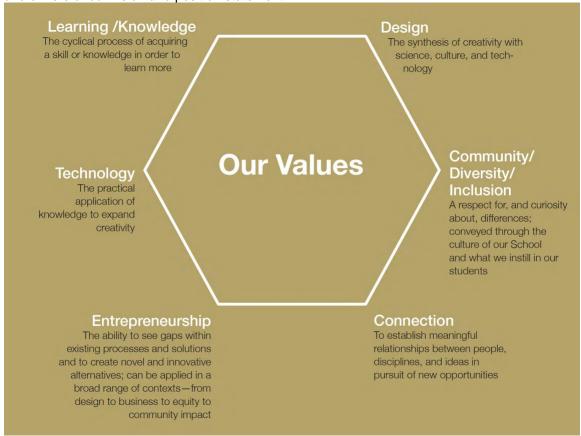
The foundational goals from the study, "What is our Response to the Future, Toward a Vision for the School of Architecture," are listed below. These goals considered and aligned with many of the PC and SC requirements of the NAAB.

- We will place issues around climate change and the built environment at the core of our graduate programs.
- We will re-establish and reclaim design thinking as native to architecture and urban design to capture the current and future opportunities of this skill.
- We will be recognized as a leader of equity, justice, diversity, and inclusion (social, intellectual, technological).
- We will cultivate the role of architects as public intellectuals, advocating for thoughtful, smart solutions to architectural and urban problems.
- We will increase our engagement with the Institute by positioning buildings and cities as
 platforms for testing technologies being developed in other disciplines.
- We will continue to leverage Atlanta as a lab for the study of architecture and urbanism.
- We will integrate construction and real estate into our architecture and urban design curriculum in a value-added way.
- We will develop our M.S. in Architecture program with the agility to be responsive to industry changes including opportunities around automation.
- We will increase connections between design and research with stronger connections between our M.S. and M. Arch programs to add rigor and depth to design decisions.



- We will increase our emphasis on building performance, post-occupancy evaluation, and urban impact.
- The core (M. Arch) and specialist (M.S.) degree programs will have a synergistic relationship in which each is influenced, enriched, and expanded by the other.
- We will build our endowment (through greater alumni engagement) to reduce the potential burden of debt on students.
- We will expand career opportunities for our graduates by enriching their entrepreneurial spirits and positioning them to envision new modes of practice.
- We will be known for alumni participation in the community, government, policy, and advocacy.

From these goals, the following values emerged that serve as the foundation of the school culture and drivers of our vision and position statement.



These values led to the following position statement:

The Georgia Tech School of Architecture is for students with an entrepreneurial spirit who want to combine design, research, and technology to affect the built environment.

Our school embraces inclusion and is defined by the diversity of our students who are actively engaged in shaping their education, the profession, and the planet.

We connect our students to the Institute, Atlanta, and the global architectural community by preparing them with the vision, skills, and agility to leverage the opportunities in the ever-changing future.



Although this strategic planning process occurred during a leadership transition at the Institute level, many of the values and focus points align with the new Georgia Tech Strategic Plan put in place by the new President and Provost. The SoA is also going through a leadership transition in the Fall of 2022 that will be an opportunity for refinements and further alignment with the Institute priorities

5.2.2 Key performance indicators used by the unit and the institution

Program Response:

Beyond the specific goals listed above for the M. Arch program, additional goals and performance indicators that are common between the SoA, College of Design, and the Institute include the following:

- Student enrollment & retention: Maintain a target enrollment for both the 2-year and 3.5-year incoming classes and track how many of these students complete the program and graduate.
- Student satisfaction: Monitor the <u>Course Instructor Opinion Surveys</u> (CIOS) feedback for all courses along with direct feedback from our Student Advisory Council.
- Student to faculty ratio (for architecture, specific goals are set for design studios)
- Job placement: How many students secure full-time employment following graduation
- Faculty output: Track research grants, publications, presentations, awards, and other faculty achievements.
- Faculty diversity: Monitor progress in achieving a diverse and balanced faculty including full and part-time members.
- Student diversity: Monitor the recruiting efforts targeting underrepresented groups and the diversity of our accepted applicants.
- Student engagement: Maintain strong student engagement through student organizations, Student Ambassadors, Student Advisory Council, and other extracurricular activities.

5.2.3 How well the program is progressing toward its mission and stated multiyear objectives.

Program Response:

The M. Arch program is making good progress toward its goals outlined in the strategic planning study from 2019 and in the performance indicators listed above. Below are the highlights of this progress:

Focus on Climate Change

- A new required course, ARCH 7360: Design and Climate Change was added to the M. Arch curriculum.
- ARCH 6040: Advanced Studio II (Portman Prize studio) was re-envisioned to explicitly address climate change and social equity.

Improvements in Equity, Justice, Inclusion

- The SoA has increased the number of seminars focused on issues of equity justice and inclusion and these include ARCH 6160: Race, Space, and Architecture in the United States; ARCH 8833: Flourishing Communities Workshop; and an upcoming seminar Racial Capitalism: Inequity in the US Built Environment.
- A standing SoA EJI Committee was created that will meet regularly with the school leadership and work closely with the College's Diversity and Inclusion Council.
- An Action Plan was created by the EJI Committee that will guide the SoA in its efforts to address these issues around the curriculum, school culture, hiring, and other matters.

Atlanta as a Lab

 Several faculty members are working with local community groups through design studios and seminars.

Integration of Construction & Real Estate into Curriculum

NVB

- The M. Arch Professional Practice course is co-taught by faculty from both the School of Architecture and the School of Building Construction.
- The M. Arch technology curriculum was revised to include three new required Integrated Building Systems courses that provide more in-depth coverage of construction related content and include construction site visits.

Increased Connections between Design & Research

- The Design & Research studios are structured to bring research going on at the school into design studios and are taught by research faculty.
- The Portman Prize Studio now has a dedicated research component that includes workshops led by outside experts brought in by the visiting Portman Prize Critic that lays the foundation for the design work.

Financial Support for Students

- In addition to the four full-tuition endowed fellowships for M. Arch students, there are now an average of seven to ten annual firm fellowships that vary from \$5,000 \$10,000 per vear.
- In 2021, the SoA secured a firm fellowship dedicated to underrepresented minority students that was first awarded in 2022.
- The SoA increased its Graduate Teaching Assistantships, and they are now divided by semester to provide financial access to more students.

Student Enrollment & Retention

- From 2017 to 2022 incoming enrollment in the M. Arch program, including both the 2-yr and 3.5-yr tracks, grew from 41 to 95.
- There are no retention concerns in the M. Arch program.

Student Engagement & Satisfaction

• Since the last accreditation, the SoA has added three new student organizations, formed a Student Advisory Council and created Student Ambassadors.

Student to Faculty Ratio

• Despite the growth in enrollment, the M. Arch program has maintained a student to faculty ratio of no more than 13 to 1, with the average being 12 to 1.

Job Placement

• Through the success of our Career Fair, Practicum program, and strong alumni network, our M. Arch students are often receiving several job offers in desirable positions.

Faculty Diversity

- Since our last accreditation visit, we have appointed seven full-time faculty with four of these appointments being women, including one Asian American, and one Trinidadian.
- In AY 2021-22, of the twenty-two part-time faculty hired, ten were women and five were people of color.

5.2.4 Strengths, challenges, and opportunities faced by the program as it strives to continuously improve learning outcomes and opportunities.

Program Response:

Strengths

Faculty

The SoA faculty is comprised of twenty-four full-time tenured or tenure-track assistant, associate, or full professors; five professors of the practice, two NEXT Fellow visiting assistant professors, and twenty-six part-time or full-time lecturers (varies slightly semester to semester). Our full-time professors are active in publication, research, and practice, and several are nationally and internationally recognized leaders in their respective areas of expertise. The professors of the practice are founding partners or leaders in local firms and bring a strong knowledge of the design and construction industry to the school. Many of the lecturers are also local practitioners or owners of small start-up architectural practices.

Students



From 2017 to 2022 incoming enrollment in the M. Arch program, including both the 2-yr and 3.5-yr tracks, has grown from 41 to 95 and the students continue to be more prepared, dedicated to their education, and engaged in the life of the school. The 3.5-yr students come from diverse degree backgrounds and build up their foundational skills and knowledge in the Core year curriculum before joining our 2-yr students in the second-year Advanced curriculum. The 2-yr. students come from top pre-professional programs around the world fully prepared to jump into the rigor of the SoA program.

Facilities

The <u>Hinman Research Building</u> is the home base for the M. Arch program and is where all studios are held, most reviews, the Portfolio Competition and Celebration, End of Year Show, and many other events. Three of the School's research labs are in Hinman, as is the work area for Ph.D. students. Widely recognized for its design excellence with numerous professional and industry awards, the Hinman Research Building, combines a sensitive rehabilitation of vintage, modern, and utilitarian research labs with an architecturally inventive and experientially rich spatial adaptation re-programmed for design and research instruction. During their time in the M. Arch program, students form a strong connection with the many aspects of the building including the main studio space, the Hammock, the Cave, and the Hinman Courtyard. The Courtyard, adjacent to the main space and connected through a large roll up garage door, is a place for students to build and display installations and physical prototypes of projects they design in studio or elective courses.

The <u>Digital Fabrication Lab</u> (DFL) was one of the first in the country to be outfitted with industrial CNC equipment for both wood and metal fabrication dedicated to full-scale building prototypes and material testing. The DFL supports both faculty research and research-based studios and seminars. Students from all SoA programs can participate in studios, electives, and research projects over the course of the semester and year. Much of the coursework, equipment, and research in the lab focuses on the automated production and assembly of building systems using information models and CNC equipment. The lab also houses a small structures and materials testing lab, a concrete casting lab, and outdoor areas for installation and testing of mock-ups.

Atlanta

Atlanta is a city bursting with culture and creativity, thriving with a diverse community, and billowing with opportunity, and because of these advantages, the SoA can explore the built environment in many ways and on many scales. As the "City of Neighborhoods," the SoA envisions the futures of our suburbs in addition to our urban areas. As a "City in the Forest," the SoA can visualize how nature can be preserved as the world continues to grow and urbanize. As "the ATL," the SoA sees the global impact of work and finds ways to make broader connections to communities around the world. Atlanta is among the top music cities in the world, serving as a major hub for hip hop and overflowing with music venues, concerts, and festivals. From museum and gallery exhibitions to street art, Atlanta offers students many opportunities to experience and engage with the art culture of the city. Students benefit from their proximity to the High Museum of Art, the Museum of Design Atlanta, and the Goat Farm, among other venues. Atlanta is also home to several film studios, and it is not uncommon to receive notice of filming near the SoA. Atlanta is also home to over 250 architecture firms where many Georgia Tech alumni either own the firms, are part of leadership, or work. This provides an invaluable resource to the school and provides many career path opportunities for graduates.

Breadth and Depth of the SoA

Another strength of the M. Arch program is its position among four other programs within the School of Architecture, especially the Master of Science programs in Architecture and Urban Design and our Ph.D. program. The breadth and depth of research that occurs in these programs provides M. Arch students with unique opportunities to understand and engage in world-class research through five labs and centers. These labs form the foundation of unique design and research studios in the third year of the curriculum where research faculty teach and bring in their research to test and apply through design problems in a studio setting.



Georgia Tech

The international reputation of Georgia Tech as a top-ranked, Carnegie R1 institution is a significant attraction to our students. With its top ten rankings in many academic subjects and other categories, Georgia Tech maintains a reputation as one of the best educations in the U.S., as well as its reputation as one of the best values in higher education. Known primarily for engineering, computing, and sciences, Georgia Tech's rankings from US News & World Report include #4 in undergraduate engineering overall, #5 in undergraduate computer science, #7 in graduate engineering overall. In architecture, Georgia Tech's most recent QS Ranking (2021) was #26 in the world and #7 in North America. The SoA also ranked in the top ten in ten focus areas in the Design Intelligence ratings in 2019, the most recent rankings.

Challenges

Studio and Instructional Space

As enrollment in most programs has continued to grow over the past seven years, space for studios and other large classes has become a problem. In 2022, a significant increase in the M. Arch program's incoming class means that enrollment in the second-year Advanced studios almost doubled from fifty-four in 2021 to 101 in 2022. This has resulted in the loss of pin-up and review space and if this trend continues next year, the SoA will lose all review space, which will prevent the program from properly delivering curriculum. Additionally, with the required lecture and lab courses, it is becoming increasingly difficult to find classroom spaces large enough to hold these courses. These courses are booked as part of an Institute-wide reservation system and this problem exists outside of our school and college. Studios are space-intensive courses but are necessary for the delivery of an architecture curriculum and the SoA will need additional space in 2023.

Staff

In 2015, the SoA had five full-time dedicated staff that covered student advising for all programs, student hiring for all programs, faculty matters including RPT and hiring, finance which included managing the school budget and processing reimbursable expenses, marketing, events, communications, and recruiting. At that time, the student enrollment was about half of what it is in 2022. Currently, the SoA has three full-time dedicated staff with twice as many students along with the resulting increase in part-time faculty. This cut in staffing has resulted in an extremely negative impact on the school with many staff responsibilities shifting to the Chair and Associate Chair. Additionally, the HR processes at the Institute have become significantly more complicated and time-consuming resulting in delays in hiring and payment to faculty and students. This is one of the most pressing threats to the future success of the SoA and is not sustainable. The College Dean is aware of this situation.

Maintaining Research Legacy

With the recent and pending retirement of three of our senior research faculty, Professor Godfried Augenbroe (High Performance Building Lab), Professor Chuck Eastman (Digital Building Lab), and Professor Craig Zimring (SimTigrate Lab), who founded and led three of our legacy research labs, the school is in a transition of research leadership that is both a challenge and opportunity.

In coming years, there will be other senior research faculty nearing retirement. They have been key to establishing SoA's well-known research reputation; therefore, it will be critical that dedicated resources and financial support for these faculty positions are protected within the SoA as future transitions occur.

One position to replace Professor Augenbroe was successfully completed in 2019 with Assistant Professor Tarek Rakha stepping in to maintain and grow the research around High Performance Building. The SoA were at the short-list phase of a search to replace Professor Eastman when COVID hit in spring 2020 and the search was halted. To date, it has not been picked up and this gap has put the international reputation of the Digital Building Lab (DBL) at risk. It is essential that



the SoA commits to international searches for top research faculty, either emerging or established, to fill these positions.

Student Financial Support/Fundraising

Students in the M. Arch program are supported by graduate teaching assistantships (GTAs), endowments, firm fellowships, and work-study positions. The primary source of financial support is GTA positions, which provide a tuition waiver and stipend for living expenses; twenty to twenty-five of these are available for the M. Arch program. The SoA has four full tuition endowed fellowships for M. Arch students and an average of seven to ten firm fellowships each year that vary from \$5,000 - \$10,000 per year. In 2021, the SoA secured a firm fellowship dedicated to underrepresented minority students that was first awarded in 2022 and are working to use this example to secure other similar fellowships. While the endowments are secure, the firm fellowships are contingent upon firms renewing their commitment every two to three years. Except for work-study positions, all financial support is awarded upon admission and is one of our primary recruiting tools.

Reducing student debt has been and continues to be a priority for the SoA but the programs have been limited in the ability to progress. Fundraising has resulted in an increase in firm fellowships, but these are not stable. The Institute limits the number of GTA positions for each college. The only way to increase support for student tuition is through increased fundraising. The Institute has just launched a new capital campaign and increasing our ability to financially support students will be our top priority.

Opportunities

Build up History/Theory Curriculum

The SoA went through a transition in history and theory faculty over the past ten years and recently hired two new faculty members in the area: Assistant Professor Danielle Willkens and Assistant Professor Elisa Dainese. Efforts started to assess and improve this part of the curriculum, and with the arrival of these two new faculty members, the SoA is re-envisioning and updating this part of our curriculum, as well as the overall history and theory research agenda.

Re-envision Digital Building Lab (DFL)

As described above, the Digital Building Lab is one of our unique resources and a part of the school's reputation but needs a new vision along with an equipment upgrade. The school hired Chris Simon, a non-tenure track academic faculty member, in spring 2022 to lead this effort. He will be working with a group of faculty members who conduct research in the DFL along with faculty who regularly utilize the facility for their studios and courses. The DFL continues to be an effective recruiting tool for students and there is a significant number of students who either currently utilize the lab or are interested in getting more active in the lab. The DFL was one of the pioneering fabrication labs in architecture schools in the 1990s and early 2000s and is well positioned to evolve into a next generation fabrication and research facility.

Increased Student Diversity

The SoA is fortunate to be in the city that is the birthplace of civil rights leader Dr. Martin Luther King, Jr., and home to the National Center for Civil and Human Rights. It has also gained a reputation for being a welcoming destination for immigrants from around the world. Atlanta is centered within the dozens of Historically Black Colleges and Universities in the southeast region of the U.S. and home to Clark Atlanta University, Morehouse College, and Spelman College. This context provides the foundation for the SoA to build a strong and successful recruiting plan for underrepresented groups to come to the Georgia Tech. This effort has started as part of our Equity, Justice, and Inclusion action plan and will be a priority for the SoA in the coming years.

Interdisciplinary Collaborations

Interdisciplinary work is part of the DNA of Georgia Tech at large and occurs regularly in both in the research community and through academic programs like the undergraduate Capstone



Design Expo. Within the M. Arch program, this has been more challenging given the strict curriculum plan, the time demands of studio, and the short time that students are on campus. However, the opportunity exists for increased collaboration with the other disciplines and research labs within the College of Design along with a few outside disciplines who already have connections to the College and School. Additionally, the SoA has actively pursued courtesy appointments of faculty members from other schools to help strengthen connections across campus.

5.2.5 Ongoing outside input from others, including practitioners.

Program Response:

Students and faculty have regular engagements with professionals, industry representatives, faculty from other schools within the college, and outside Georgia Tech. The College of Design has an Advisory Board made up of professionals and outside representatives from all disciplines in the college that meets regularly with the Dean and School Chairs. Many local practicing architects and engineers are hired to teach or co-teach courses in the M. Arch program. These part-time lecturers also participate in faculty meetings, pin-ups, and reviews for studios and other courses and provide continuous insight into the state of the profession. Following final reviews, surveys are sent to the jurors soliciting feedback on the students' work. The SoA lectures and events program also bring in outside voices, experiences, and expertise from around the world.

Starting in 2016, the SoA School Chair made regular visits and presentations to local firms to show what the school was doing and to get input on how they could engage with the school. These visits were effective in making the local professional community feel they were part of the school community and it initiated relationships that sometimes resulted in firm fellowships or other types of support for the program.

The annual Career Fair is the primary means of providing our students with exposure to the various types of architecture and design firms and the various available job opportunities. Sixty to seventy firms from throughout the southeast region set up booths at the fair and actively recruit our students. Following the annual Career Fair, a survey is shared with practitioners asking for their assessment of the M. Arch candidates' communication skills, professionalism, and potential as demonstrated by their portfolio of creative work.

The program must also demonstrate that it regularly uses the results of self-assessments to advise and encourage changes and adjustments that promote student and faculty success.

Program Response:

The Master of Architecture program (as all degree programs in the SoA) completes an annual assessment review following the template below:



| CURRENT CYCLE | ASSESSMENT PLAN | N AND F | EPORT: | | | | | | |
|---|-----------------------------------|---------|----------|--|--|-------------|--------|--|--|
| Step 1: Specify Expected Outcome | Step 2: Identify Measures (Dir | | | Step 3: Establish Acceptable Targets for Performance Aligned <u>With</u> Each Measure/Method | Step 4: Collect, Anal | yze, Review | esults | Step 5: Use Results to Improve Outcomes (Continuous Improvement Action Plan) | |
| (i.e., Program Level Student Learning Outcome) | Measures/Method | Direct | Indirect | | Target Target Performance Level not achieved but improvements realized when compared to performance decreased or performance Performance Level not achieved but improvements realized when compared to performance in previous cycle Performance Performance achieved but improvements realized when compared to performance in previous cycle Performance P | | | | |
| 1. | | | | | | | | | |
| | | | | | | | | | |
| 2. | | | | | | | | | |

The program utilizes both direct and indirect measures to assess the program-level student learning outcomes. Direct measures include faculty assessment of all portfolios in December and review of graduating students' portfolios in April. Both measures offer a critical lens into the efficacy of the curriculum. Indirect measures include student, practitioner, and invited jury member surveys.

5.3 Curricular Development

The program must demonstrate a well-reasoned process for assessing its curriculum and making adjustments based on the outcome of the assessment.

Programs must also identify the frequency for assessing all or part of its curriculum.

Program Response:

The M. Arch program at Georgia Tech has a systematic and well-reasoned process for assessing the curriculum and making adjustments based on the outcome of the assessment process. The SoA receives support from the <u>Georgia Tech Office of Academic Effectiveness</u>, with Executive Director of Assessment Franz H. Reneau as the primary point of contact. The office fosters a meaningful and rigorous assessment process within the Institute, using direct and indirect measures and works with the SoA each year to submit an annual assessment report to their office.

The SoA assessment process is outlined below:

- 1. Goals set goals for each PC and SC
- Assessment Points identify the courses, activities, or other points where the assessment will occur
- Measures / Benchmarks / Results identify assessment measures for each PC and SC and benchmarks for each measure and collect and aggregate results
- 4. Review Data review data to determine if goals and benchmarks are being met
- 5. Improvement Plan make changes / improvements based on the data review

Below are the key activities when data is collected and assessed for PC's and SC's:

- Program Criteria (PC)
 - a. Career Fair surveys completed by firms who attended (annually)
 - b. Practicum surveys completed by firms who participated (annually)
 - c. Graduating students exit survey (end of spring semester)
 - d. ARE pass rates for Georgia Tech students (annually)
 - e. Georgia Tech Annual Assessment Report (annually)
 - f. Faculty review of graduating student's portfolio submission and review (end of spring semester)
 - g. Student Advisory Council Meetings (monthly)



- h. Academic course schedule (annually)
- Student Criteria (SC)
 - a. Faculty review of student portfolios during the annual Portfolio Competition and Celebration (end of fall semester)
 - b. Annual faculty meeting dedicated to curricular assessment (end of spring semester)
 - Faculty review of graduating student's portfolio submission and review (end of spring semester)
 - d. Final jury surveys for design studios (end of fall and spring semesters)
 - e. Curricular task forces (as needed)
 - f. Student performance on specific SC topics (ongoing)
 - g. Course embedded assessments (per semester)

As part of the SoA's continuing improvement of the assessment process, following spring and summer 2022 assessments, the SoA will be using Qualtrics, with the support of the Office of Academic Effectiveness, to collect, aggregate, and evaluate data through a series of direct assessment rubrics. Moving forward in AY 2022-2023, benchmarks will be directly aligned with the PCs and SCs for the required annual reporting and review cycles with the Institute's Office of Academic Effectiveness. Progress within these metrics is tracked through the Institute-required Annual Plan and Reports, due May 31, and are hosted on the cloud version of the Office of Academic Effectiveness Assessment Toolkit. Two years of SoA reports and assessment feedback cycles are currently on the system.

The results will be discussed at a yearly faculty retreat with plans to implement changes in the following academic year, through the guidance of the relevant curricular task force(s).

5.3.1 The relationship between course assessment and curricular development, including NAAB program and student criteria.

Program Response:

Within the M. Arch program, there are clear learning objectives and goals established for the required studio sequence, all required courses, and all electives. These goals and objectives are clearly stated in all course syllabi. Additionally, those courses that are used as evidence for specific NAAB PC or SC points include these along with a description in the syllabus.

Annually, in December, each student prepares and presents an academic portfolio for public review by the full SoA community. This is a celebratory event, but it also offers an opportunity for faculty to assess the efficacy of courses across each year of the professional degree program. Each faculty member completes a rubric, feedback is evaluated, and measures for improvement are offered and implemented.

All graduating students are required to submit a full academic portfolio of all work completed over the course of their 2-year or 3.5-year program. Each faculty member completes a rubric, feedback is evaluated, and measures for improvement are offered and implemented.

Additionally, faculty uses indirect measures such as surveys of students, alumni, and practitioners as a means for assessment. Georgia Tech also offers an online course evaluation (CIOS) at the conclusion of each course with results shared with the faculty.

With the introduction of the 2020 Conditions for Accreditation, the SoA recognizes the opportunity to align the programmatic goals of the professional degree program with the broader set of values described in the new conditions.



5.3.2 The roles and responsibilities of the personnel and committees involved in setting curricular agendas and initiatives, including the curriculum committee, program coordinators, and department chairs or directors.

Program Response:

The Master of Architecture program director works with the School Chair on curricular oversight and development of the professional degree program. Rather than a standing curriculum committee, topic-specific task forces are assembled by the School Chair to review specific aspects of the M. Arch program and offer recommendations for revisions and implementation to the full faculty. For proposed degree modifications, the full-time SoA faculty meet to review, discuss, and vote on the final proposal. All degree modifications are reviewed, processed, and approved at the School, College, and Institute Graduate Curriculum Committee.

5.4 Human Resources and Human Resource Development

The program must demonstrate that it has appropriate and adequately funded human resources to support student learning and achievement. Human resources include full- and part-time instructional faculty, administrative leadership, and technical, administrative, and other support staff. The program must:

5.4.1 Demonstrate that it balances the workloads of all faculty in a way that promotes student and faculty achievement.

Program Response:

Faculty are generally required to teach, do research and/or creative work, and take on service roles in the school, college, and Institute along with external professional service. Although there is no specific division between these three activities, the rule-of-thumb is 40% teaching, 40% research/creative work, and 20% service.

The standard teaching load for SoA faculty is two courses each semester, with one typically being a studio teaching assignment. For courses with higher numbers of enrolled students (120+), faculty are further supported with a course release that same semester and a team of Graduate Teaching Assistants to support instruction. Faculty who are appointed to leadership roles (e.g., program directors) are offered a course release to balance the additional administrative load.

The percentages for the three areas of responsibility shift for assistant professors to place more emphasis on research/creative work with a reduction in service to help them build and prepare their tenure cases. Assistant professors are also given one to two course releases as part of their start-up packages and often get an additional release when they are at a key time in a writing, research, or creative project that is central to their tenure package. The school also provides assistant professors GRAs for two to four semesters to help with their work as part of their start-up package.

For associate and full professors, the percentages vary based on several factors. Some faculty members evolve their careers more focused on teaching while others tend toward research or creative work. Tenured faculty who are active in research or creative work can buy out courses with research funds to allow more time for active projects. Occasionally, at the Chair's discretion, faculty who are working on books or other projects that are not supported by funding, course releases will be granted.

Faculty resumes are available, in alphabetical order in Appendix A.

5.4.2 Demonstrate that it has an Architect Licensing Advisor who is actively performing the duties defined in the NCARB position description. These duties include attending the biannual NCARB Licensing Advisor Summit and/or other training opportunities to stay up-to-date on the



requirements for licensure and ensure that students have resources to make informed decisions on their path to licensure.

Program Response:

Professor of the Practice Stuart Romm serves as the AXP advisor for the SoA to provide guidance to students around professional practice and licensure. Professor Romm also teaches ARCH 6315 Practice of Architecture I with Professor of Practice Ennis Parker who has a joint appointment in the School of Building Construction. ARCH 6315 provides students with a comprehensive understanding of the profession and the numerous career opportunities available within the AEC industry. The SoA regularly supports Professor Romm to attend the NCARB Licensing Advisory Summit. Professor Romm also routinely participates as a guest speaker with the student organization, AIAS, to share resources and guidance on the path to licensure.

The SoA also offers two professional elective courses that supplement the core knowledge gained in ARCH 6315. ARCH 8803 Entrepreneurship in Professional Practice taught by lecturer James Cramer teaches students how to design, start, and operate an architecture firm covering topics from creating a strong design culture to maximizing profits. ARCH 6313 Traditions of Architectural Practice, taught by professor and practice scholar George Johnston, offers students an understanding of the history of the profession of architecture that contextualizes the current state of practice.

5.4.3 Demonstrate that faculty and staff have opportunities to pursue professional development that contributes to program improvement

Program Response:

The SoA provides support for faculty to advance their work in several ways including financial support, course releases, student graduate research assistants, and through our in-house publications program. Faculty who are presenting at a conference or symposium receive support for travel expenses and registration fees. This often includes additional support for students who are co-presenters. On some occasions, the school provides financial support for exhibition expenses where faculty members are showing their work. Another form of support is through course releases as described above where a faculty member can request a course release if they need additional time to complete a book, funded research project, exhibition, or some other significant project. In addition to those provided as part of their start-up packages, research faculty are sometimes provided with a dedicated graduate research assistant to help with a project. As another form of faculty support, in 2018, the SoA started a program that provided paid hourly students to support faculty with their work. Faculty members submit a short application outlining what type of support they need, and this is used to solicit student applications for the positions. This also provides some much-needed financial support for students who do not have GTA or GRA positions.

Additionally, the school recently started a publication initiative that provides a venue for documenting and disseminating research, creative work, and academic work. The school hired a graphic designer to create a template that can be used by any faculty to create a publication of their work. In most cases, unless the book is funded by outside sources, the school also provides financial support for printing.

The College's Associate Dean for Research, as part of the "College of Design: Advancing a Culture of Research" initiative, has several programs to support faculty work. This includes annual Faculty Development Grants of \$8 - \$12K that can be used as seed money to develop prototypes that can be used for applying for additional funds from outside funding agencies, or for faculty to explore new areas of research where they want to develop a track record or to investigate topics that are difficult to fund from other sources. The College also has a program to support public symposia where faculty members apply for funding to convene a symposium on campus, typically corresponding to a new book release or another significant accomplishment.



These funds are typically supplemented with funds from the School of Architecture. Another recent college program was the Faculty Research Fellows where an outside firm that specializes in grant development support was engaged to work one-on-one with faculty members to develop grant seeking strategies and to prepare specific proposals for submission.

SoA staff are given time off to attend training or other professional development courses to keep them current with the necessary skills and knowledge to do their work. Our academic advisors regularly attend courses on HR training, Advisorlink (the software used to track students), SLATE (the software used to track graduate admissions), and study abroad, among others. Additionally, as part of our annual evaluation process, all staff are asked to identify areas of professional development they are interested in pursuing the following year and the school provides the necessary support.

Provost Teaching and Learning Fellows

The Provost Teaching and Learning Fellows program was jointly established by the Provost and the Center for Teaching and Learning (CTL) in fall 2016. The aim of the program is to strengthen teaching and learning in the colleges through an embedded system of ongoing instructional support and special initiatives. Seventeen disciplinary faculty in the colleges were selected by their deans to partner with professionals in CTL, to promote environments where diverse learners can excel.

Provost Teaching and Learning Fellows serve a two-year term and meet regularly throughout the academic year to engage in collegial discussion of topics related to teaching and learning at Georgia Tech. Together with their College cohorts, the Provost Teaching and Learning Fellows develop and pursue initiatives related to teaching and learning in their specific College. These initiatives are informed by discussions with key leaders in their college and are intended to both raise the profile of teaching, and positively impact the overall learning environment.

School of Architecture Fellows:

- 2020 2022: Charles Rudolph, Associate Professor
- 2017 2019: Julie Ju-Youn Kim, Associate Professor

Emerging Leaders Program

The Emerging Leaders Program started in 2016 and is designed for associate and full professors who have attained tenure. Over the course of nine months, participants take part in several activities including a fall weekend workshop, monthly workshops, small-group work, and a 360-degree assessment. The program is a collaboration between the Office of the Provost, the Office of the Executive Vice President for Research, the Institute for Leadership and Social Impact, and the Office of the Vice Provost for Faculty.

School of Architecture:

- 2019 2020: Julie Ju-Youn Kim, Associate Professor
- 2017 2018: Benjamin Flowers, Professor

5.4.4 Describe the support services available to students in the program, including but not limited to academic and personal advising, mental well-being, career guidance, internship, and job placement.

Program Response:

Academic Advising

Each student in the School of Architecture has access to academic advisors and faculty mentors who can assist students in identifying their individual academic interests and establishing professional, scholarly, and career objectives.



The School of Architecture's administrative team includes two academic advisors to guide, encourage, and support students in the pursuit of their educational and professional goals. They provide information about, and facilitate access to, the breadth of student resources available in the School of Architecture, College of Design, and Georgia Tech. The academic advisors are readily available to consult for recruitment and admissions, and provide routine advisement for curricular requirements, course registration, and student support services. They also maintain student records and process institutional forms, including student petitions and special requests. The School of Architecture Chair and Associate Chair are available to all students to assist in resolving any issues that cannot be adequately addressed by the advising team.

Student Counseling

The <u>Georgia Tech Counseling Center</u> offers a full range of counseling and psychological services provided by counseling professionals to facilitate students' personal development, assist in the alleviation, remediation, and prevention of distress, and provide services that help students develop self-awareness, self-reliance, and self-confidence.

The center also provides individual and group counseling and psychotherapy, as well as several ongoing psycho-educational offerings, including relaxation/stress management workshops and support groups. Workshops and groups are open to all Tech students. After-hours crisis counseling is available 24-hours a day and seven days a week while school is in session by calling 404-894-2575.

The Institute has a new Well-Being plan, responding to the goals of the Strategic Plan.

Additional Student Support Services

- <u>Success at Tech</u> provides a network of support including academic coaching, tutoring, and peer-led study groups.
- The <u>Division of Student Life</u> has easy links to student support programs, including the Counseling Center, Disability Services, LGBTQIA Resource Center, the Veterans Resource Center, Women's Resource Center, and the Dean of Students.
- GT Advising provides helpful information on communicating with faculty, study strategies, test preparation, and more.
- The <u>Career Center</u> assists with career counseling, job search advice, co-op and internship info, salary calculator tools, etc., and has a career counselor embedded in the College of Design to assist students. With an office in the East Architecture building, she can meet the students where they are.
- Office of International Education provides resources for international students, and information on study abroad, exchange programs, and other international education opportunities.
- Office of the Dean of Students provides several services to assist students with medical and personal emergencies.
- Office of Disability Services assists students with disabilities to obtain the accommodations and services they require.
- Office of Financial Aid assists with questions about Hope, Zell, scholarships, student loans, financing school, etc.
- <u>STAR Services</u> provides emergency assistance for basic needs like food, clothing, and shelter.

5.5 Social Equity, Diversity, and Inclusion

The program must demonstrate its commitment to diversity and inclusion among current and prospective faculty, staff, and students. The program must:

5.5.1 Describe how this commitment is reflected in the distribution of its human, physical, and financial resources.



Program Response:

The School of Architecture maintains its commitment to diversity and inclusion in several ways.

In 2015, Associate Professor Julie Kim resurrected the College-level Diversity and Inclusion Council with representation from faculty across all five Schools, student representatives from undergraduate and graduate programs, and ex-officio members from the Dean's office. Initiatives aimed at improving gender diversity across faculty and programming that included faculty from other Colleges at the Institute helped establish the foundation for work that continues today. In her capacity as Associate Chair, Julie fostered open and inclusive dialogue, bringing opportunities from the school-level to the College-level council and vice versa.

In 2019, the School of Architecture established a Diversity and Inclusion task force to sharpen focused attention on school-specific concerns around the curriculum, community, and programs. This task force, led by School Chair Scott Marble and Associate Chair Julie Kim, was composed of faculty, staff, and students. The outcome of this year-long task force resulted in an action plan, establishing the School's <u>Commitment to Antiracism</u>. In 2020-21, a dedicated Diversity and Inclusion committee that included faculty, staff, students, and alumni was established. This DI committee was charged with developing specific initiatives related to the 2019 Action Plan. The committee meets regularly and shares a report at the end of the academic year at the spring faculty retreat. As a relatively new committee, improvements to the process need to be addressed so that the outcomes can lead to more diverse and inclusive practices.

The School is committed to increasing diversity in the students, faculty, and staff and has made progress since the last accreditation report. Full-time faculty improvements include increasing gender and ethnic diversity but there is still work to be done. Since the last accreditation visit, the SoA appointed seven full-time faculty with four of these appointments being women, including one Asian American, and one Trinidadian. The SoA have made significant improvements in the part-time faculty as it is now considerably more diverse today. The School of Architecture staff is a small yet resourceful team of three people with two of the staff positions being held by women of color.

With limited financial resources, the SoA aims to offer as much support to students as possible, via tuition waivers, hourly positions, and fellowships. Since the last accreditation report, the SoA increased the number of students supported with some level of financial support. There is more work that needs to be done here as enrollment continues to grow.

5.5.2 Describe its plan for maintaining or increasing the diversity of its faculty and staff since the last accreditation cycle, how it has implemented the plan, and what it intends to do during the next accreditation cycle. Also, compare the program's faculty and staff demographics with that of the program's students and other benchmarks the program deems relevant.

Program Response:

The School of Architecture is continuing to improve its diversity of faculty and staff, but more work remains to be done. While one of the recent tenure-track appointments is a woman of color, the number of full-time faculty of color remains low. Due to the global pandemic, two faculty searches were put on hold, compromising the SoA's ability to make further progress in this arena.

Under School Chair Scott Marble and Associate Chair Julie Kim, a new fellowship – the NEXT Fellowship program - was established geared towards emerging faculty at the start of their careers. Significant effort was made to ensure a diverse and deep pool of candidates was sought via social media and other job-related websites and search engines. Since 2016, the NEXT Fellowship program has received nearly 100 applications from around the world. The five Fellows have included one woman of color, one man of color, as well as one white woman and two white men.



While making changes in the SoA full-time faculty depends on new faculty lines, retirements, or faculty departing the school and can take many years, the program was able to make rapid changes in the hiring of part-time faculty, which have increased significantly over the past seven years and represent the wide diversity of the profession with respect to age, background, race, and expertise. In AY 2021-22, of the twenty-two part-time faculty hired, ten were women, and five were people of color.

The faculty, taken across full and part-time appointments, made significant strides in both maintaining and increasing diversity.

5.5.3 Describe its plan for maintaining or increasing the diversity of its students since the last accreditation cycle, how it has implemented the plan, and what it intends to do during the next accreditation cycle. Also, compare the program's student demographics with that of the institution and other benchmarks the program deems relevant.

Program Response:

While steady, the participation from underrepresented minority students interested in the M. Arch program has historically been lower than desired. To expand participation, recruiting efforts included promoting and participating in the Georgia Tech Focus Program and in 2021 the SoA initiated targeted recruiting from Historically Black Colleges and Universities (HBCUs) in Atlanta and the southeast region. This has only just begun with some initial contacts made. Some of our current students and recent alumni from these schools serve as ambassadors in helping the school effectively make meaningful connections. The SoA have and will continue to extend invitations to HBCU undergraduate program directors to participate in SoA reviews. There is also a plan to make a dedicated Open Studio Day for students from HBCUs to give them a chance to see our studios in action and spend time talking with GT students and faculty.

While many of these plans have been made, the global pandemic has hindered their full implementation, but the SoA is eager to make this a priority moving forward. To date, the SoA enrolls female students as well as Black and Hispanic students at a higher rate than the Institute.

As part of its plan moving forward, the SoA will become more active in the Georgia Tech Focus program, which is one of the nation's premier graduate recruitment programs designed to attract highly skilled students who have historically been underrepresented in higher education, equipping them with the knowledge and resources necessary to successfully navigate the graduate admissions process. Each year, a select group of undergraduate students (we refer to this group as Focus Scholars) who are in their third through final years of undergrad from around the nation are invited to apply to attend Focus.

Below are three charts that show total enrollment numbers for the M. Arch program, the School of Architecture and Georgia Tech showing comparative demographic data.

MAB

female male TOTAL

| fall 2 | 2015 | fall 2 | 2016 | fall 2 | 2017 | fall 2 | 2018 | fall 2 | 2019 | fall 2 | 2020 | fall 2 | 2021 |
|--------|------|--------|------|--------|------|--------|------|--------|------|--------|------|--------|------|
| 52 | 50% | 53 | 51% | 60 | 58% | 51 | 62% | 64 | 62% | 65 | 59% | 67 | 56% |
| 53 | 50% | 51 | 49% | 43 | 42% | 31 | 38% | 40 | 38% | 46 | 41% | 53 | 44% |
| 105 | | 104 | | 103 | | 82 | | 104 | | 111 | | 120 | |

American Indian or Alaska Native Asian Black or African American Hispanic or Latino Native Hawaiian/Pacific Islander Two or more Unknown White TOTAL

| fall 2 | 2015 | fall 2 | 2016 | fall 2 | 2017 | fall 2 | 2018 | fall 2 | 2019 | fall 2 | 2020 | fall 2 | 2021 |
|--------|------|--------|------|--------|------|--------|------|--------|------|--------|------|--------|------|
| 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| 21 | 20% | 35 | 34% | 40 | 39% | 30 | 37% | 36 | 35% | 29 | 26% | 30 | 25% |
| 16 | 15% | 15 | 14% | 10 | 10% | 7 | 9% | 4 | 4% | 10 | 9% | 10 | 8% |
| 14 | 13% | 14 | 13% | 16 | 16% | 9 | 11% | 10 | 10% | 18 | 16% | 16 | 13% |
| 0 | 0% | 1 | 1% | 1 | 1% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| 2 | 2% | 2 | 2% | 3 | 3% | 3 | 4% | 3 | 3% | 4 | 4% | 1 | 1% |
| 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| 52 | 50% | 37 | 36% | 34 | 33% | 33 | 40% | 51 | 49% | 51 | 46% | 60 | 50% |
| 105 | | 104 | | 103 | | 82 | | 104 | | 111 | | 120 | |

female male TOTAL

| fall | 2015 | fall 2 | 2016 | fall | 2017 | fall 2 | 2018 | fall 2 | 2019 | fall 2 | 2020 | fall 2 | 2021 |
|------|------|--------|------|------|------|--------|------|--------|------|--------|------|--------|------|
| 162 | 52% | 176 | 55% | 207 | 61% | 202 | 60% | 225 | 63% | 224 | 59% | 251 | 59% |
| 150 | 48% | 142 | 45% | 131 | 39% | 135 | 40% | 133 | 37% | 156 | 41% | 171 | 41% |
| 312 | | 318 | | 338 | | 337 | | 358 | | 380 | | 422 | |

American Indian or Alaska Native Asian Black or African American Hispanic or Latino Native Hawaiian/Pacific Islander Two or more Unknown White

| fall | 2015 | fall 2 | 2016 | fall 2 | 2017 | fall 2 | 2018 | fall 2 | 2019 | fall 2 | 2020 | fall 2 | 2021 |
|------|------|--------|------|--------|------|--------|------|--------|------|--------|------|--------|------|
| 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| 82 | 26% | 101 | 32% | 116 | 34% | 118 | 35% | 112 | 31% | 106 | 28% | 122 | 29% |
| 32 | 10% | 39 | 12% | 32 | 9% | 30 | 9% | 24 | 7% | 27 | 7% | 31 | 7% |
| 38 | 12% | 34 | 11% | 37 | 11% | 38 | 11% | 39 | 11% | 48 | 13% | 55 | 13% |
| 0 | 0% | 1 | 0% | 1 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| 7 | 2% | 6 | 2% | 9 | 3% | 12 | 4% | 17 | 5% | 22 | 6% | 20 | 5% |
| 1 | 0% | 2 | 1% | 4 | 1% | 5 | 1% | 4 | 1% | 5 | 1% | 4 | 1% |
| 152 | 49% | 135 | 42% | 139 | 41% | 134 | 40% | 162 | 45% | 172 | 45% | 190 | 45% |
| 312 | | 318 | | 338 | | 337 | | 358 | | 380 | | 422 | |

undergraduate masters Ph.D. TOTAL

TOTAL

| fall 2 | 2015 | fall 2 | 2016 | fall 2 | 2017 | fall 2 | 2018 | fall 2 | 2019 | fall 2 | 2020 | fall 2 | 2021 |
|--------|------|--------|------|--------|------|--------|------|--------|------|--------|------|--------|------|
| 145 | 46% | 147 | 46% | 158 | 47% | 179 | 53% | 187 | 52% | 212 | 56% | 237 | 56% |
| 126 | 40% | 131 | 41% | 141 | 42% | 120 | 36% | 133 | 37% | 133 | 35% | 156 | 37% |
| 41 | 13% | 40 | 13% | 39 | 12% | 38 | 11% | 38 | 11% | 35 | 9% | 29 | 7% |
| 312 | | 318 | | 338 | | 337 | | 358 | | 380 | | 422 | |



| | fall 2 | 015 | fall 20 | 116 | fall 2 | 017 | fall 2 | n10 | fall 2 | 010 | fall 2 | 020 | fall 20 | 024 |
|--------|--------|-----|---------|-----|--------|-----|--------|-----|--------|-----|--------|-----|---------|-----|
| | 7.671 | 31% | 8.286 | 31% | 9.080 | 31% | 9.988 | 31% | 11.174 | 31% | 12.293 | 31% | 13.812 | 32% |
| female | ,- | | -, | | -, | | -, | | , | | , | | -,- | |
| male | 17,366 | 69% | 18,550 | 69% | 20,289 | 69% | 22,729 | 69% | 25,313 | 69% | 27,483 | 69% | 30,032 | 68% |
| TOTAL | 25,037 | | 26,836 | | 29,369 | | 32,717 | | 36,487 | | 39,776 | | 43,844 | |

American Indian or Alaska Native Asian Black or African American Hispanic or Latino Native Hawaiian/Pacific Islander Two or more Unknown White TOTAL

| fall 2 | 015 | fall 20 | 016 | fall 2 | 017 | fall 2 | 018 | fall 2 | 019 | fall 2 | 020 | fall 2 | 021 |
|--------|-----|---------|-----|--------|-----|--------|-----|--------|-----|--------|-----|--------|-----|
| 18 | 0% | 12 | 0% | 12 | 0% | 13 | 0% | 19 | 0% | 22 | 0% | 23 | 0% |
| 8,275 | 33% | 9,014 | 34% | 10,061 | 34% | 11,837 | 36% | 13,893 | 38% | 15,873 | 40% | 18,563 | 42% |
| 1,522 | 6% | 1,639 | 6% | 1,794 | 6% | 1,895 | 6% | 2,064 | 6% | 2,242 | 6% | 2,465 | 6% |
| 1,719 | 7% | 1,900 | 7% | 2,130 | 7% | 2,499 | 8% | 2,784 | 8% | 3,081 | 8% | 3,514 | 8% |
| 15 | 0% | 12 | 0% | 11 | 0% | 9 | 0% | 18 | 0% | 18 | 0% | 22 | 0% |
| 846 | 3% | 900 | 3% | 959 | 3% | 1,111 | 3% | 1,228 | 3% | 1,341 | 3% | 1,454 | 3% |
| 308 | 1% | 417 | 2% | 504 | 2% | 547 | 2% | 605 | 2% | 623 | 2% | 763 | 2% |
| 12,334 | 49% | 12,942 | 48% | 13,898 | 47% | 14,806 | 45% | 15,876 | 44% | 16,576 | 42% | 17,040 | 39% |
| 25,037 | | 26,836 | | 29,369 | | 32,717 | | 36,487 | | 39,776 | | 43,844 | |

undergraduate masters Ph.D. TOTAL

| fall 2 | 015 | fall 20 |)16 | fall 20 | 017 | fall 20 | 018 | fall 2 | 019 | fall 2 | 020 | fall 20 |)21 |
|--------|-----|---------|-----|---------|-----|---------|-----|--------|-----|--------|-----|---------|-----|
| 15,143 | 60% | 15,486 | 58% | 15,572 | 53% | 16,046 | 49% | 16,161 | 44% | 16,564 | 42% | 17,454 | 40% |
| 6,600 | 26% | 7,934 | 30% | 10,351 | 35% | 13,173 | 40% | 16,756 | 46% | 19,649 | 49% | 22,753 | 52% |
| 3,294 | 13% | 3,416 | 13% | 3,446 | 12% | 3,498 | 11% | 3,570 | 10% | 3,563 | 9% | 3,637 | 8% |
| 25,037 | | 26,836 | | 29,369 | | 32,717 | | 36,487 | | 39,776 | | 43,844 | |

5.5.4 Document what institutional, college, or program policies are in place to further Equal Employment Opportunity/Affirmative Action (EEO/AA), as well as any other social equity, diversity, and inclusion initiatives at the program, college, or institutional level.

Program Response:

Institute Resources & Initiatives

Georgia Tech is an equal opportunity employer and will not discriminate against any employee or applicant on the basis of age, color, disability, gender, national origin, race, religion, sexual orientation, veteran status, or any classification protected by federal, state, or local law. Consistent with its obligations under federal law, each company that is a federal contractor or subcontractor is committed to taking affirmative action to employ and advance in employment qualified women, minorities, disabled individuals, and veterans.

The Institute has a <u>clear policy document on Equal Opportunity</u>, <u>Nondiscrimination</u>, and <u>Anti-Harassment</u> that outlines a statement of compliance and procedures for individuals who have been subjected to discrimination, including discriminatory harassment, and/or retaliation.

Georgia Tech also has a robust set of resources to teach, support and promote actions around equity, diversity, and inclusion at all levels from the Institute to each of the thirty schools on campus. The Institute Diversity, Equity, and Inclusion group (https://diversity.gatech.edu/) works to ensure that Georgia Tech recruits, develops, retains, and engages a diverse team of students, faculty, and staff with a wide variety of backgrounds, perspectives, interests, and talents. This group oversees several key DEI programs including the Center for the Study of Women, Science and Technology; the Georgia Tech ADVANCE Program that supports six professorships across



campus to enhance gender diversity in the faculty; Staff Diversity, Inclusion, and Engagement; Diversity and Inclusion Education Training; Staff Diversity, Inclusion, and Engagement; Student Diversity and Inclusion; Equity and Compliance Programs; Office of Minority Educational Development; and the Office of Hispanic Initiatives. Expanding access to underrepresented students, faculty, and staff is also a key part of the new Institute Strategic Plan.

One of the many resources provided to the SoA is diversity and inclusion education and training which includes implicit bias workshops for faculty. All faculty members who serve on reappointment, promotion, and tenure committees and faculty search committees are required to participate in an implicit bias workshop, renewed every three years. Additionally, all faculty and staff are required to complete annual Title IX training. One of the support initiatives is the Diversity Champion Awards that recognizes campus community members who actively work to advance a culture of inclusion and belonging among communities from historically underrepresented backgrounds at Georgia Tech. In 2021, Nitra Wisdom, one of the SoA Academic Advisors won the staff award among all staff across campus. Nitra continues to be a powerful advocate for our students and has played a key role in our schoolwide Equity, Diversity, and Inclusion efforts.

Georgia Tech also is home to the <u>Focus Program</u>, one of the nation's premier programs for diversity recruitment that hosts an annual graduate-recruitment weekend program on campus on the weekend preceding Martin Luther King, Jr. Holiday. The SoA has hosted many Focus Scholars over the years and has increased its participation in the Focus Fellows program over the past seven years. Many Focus Scholars have enrolled in the M. Arch. program as a direct result of their experiences in the Focus program. In recent years, the SoA has begun inviting Focus Fellows to campus. These are under-represented doctoral students in their final stages of a Ph.D. program and are interested in entering the academy. Six former Focus Fellows are now faculty at Georgia Tech, including Vernelle A.A. Noel, an assistant professor in the School of Architecture with a joint appointment in the College of Computing.

College of Design Resources & Initiatives

In 2016, the College of Design established a Diversity and Inclusion Council with representative members from the five schools in the college as well as ex-officio and student members. The Institute's Strategic Plan articulates its commitment to diversity in the following ways:

- to recruit, develop, retain, and engage a diverse community of students, faculty, and staff:
- to create a campus community that exemplifies the best in all of us; and
- to support our intellectual pursuits, our diversity of thought, our personal integrity, and our inclusive excellence.

The fundamental goal of the College's Design Diversity and Inclusion Council is to implement and sustain solutions focused on key themes related to diversity and inclusion at Georgia Tech. These solutions are proposed based on thorough research about Georgia Tech, peer institutions, gender studies, and pragmatic thinking, and are put into effect in a proactive and participative manner. The Council, with this long-term mission in mind, focuses on specific topics for periods of one to two years, to make significant and sustainable progress in one area at a time.

In 2021-22, the Council developed, approved, and adopted new bylaws to establish a more formal governance structure so that transparency, accountability, and measurable progress were embedded in the work of the Council.

School of Architecture Resources and Initiatives

Building on the resources from the college and Institute, and more specifically in response to the social unrest in 2020, the SoA issued a public statement on a <u>Commitment to Anti-racism</u> outlining an action plan with near and long-term goals to address racism along with broader issues of equity, justice, and inclusion within the school. This was followed by the appointment of



an EJI task force that consisted of faculty, students and staff who created a full report and detailed action plan expanding on the outline prepared by the Chair. One of actions from the report was to form a standing EJI committee to help sustain the goals of the report and assess progress on an annual basis. Many steps of the plan have been put in place and will continue to be executed in the coming years.

In further commitment to values of EJI, all syllabi include this language, unanimously approved, and adopted by the College faculty in 2021:

The College of Design community of faculty, staff, and students aspires to create and nurture an environment that is supportive of all backgrounds where different views and ideas are respected and encouraged. In all our pursuits, we commit to justice, diversity, equity, and inclusion regarding race, national origin, language, age, sexual orientation, gender, religion, and ability. Moreover, we will encourage intellectual inquiry and respectful exchange that cements our dedication to these principles.

The SoA values positive studio culture and seeks to foster a positive and equitable learning environment. Our studio culture statement is available and accessible on the SoA website: https://arch.gatech.edu/studio-culture

5.5.5 Describe the resources and procedures in place to provide adaptive environments and effective strategies to support faculty, staff, and students with different physical and/or mental abilities

Program Response:

The Office of Disability Services collaborates with students, faculty, and staff to create a campus environment that is usable, equitable, sustainable, and inclusive of all members of the Georgia Tech community. Resources to support students and faculty can be found here: https://disabilityservices.gatech.edu

Facilities and resources available to the full Georgia Tech community are fully accessible, meeting ADA guidelines for access.

All syllabi for courses taught in the SoA include this language:

Any student with a disability, that may require accommodation, should contact the Office of Disability Services at 404-894-2563 or visit http://disabilityservices.gatech.edu to make an appointment to discuss their special needs and obtain an accommodations letter. They should also schedule an appointment to speak with the course instructor to discuss their learning needs.

Within the College, the Center for Inclusive Design and Innovation (CIDI) is a recognized leader for services and research in accessibility. It is committed to the promotion of technical innovation and development of user-centered research, products, and services for individuals with disabilities. The SimTigrate's lab also provides unique insight and special expertise to augment adaptive and inclusive environments and procedures, such as hosting the 2022 Cognitive Empowerment Program (CEP) Symposium.

5.6 Physical Resources

The program must describe its physical resources and demonstrate how they safely and equitably support the program's pedagogical approach and student and faculty achievement. Physical resources include but are not limited to the following:

5.6.1 Space to support and encourage studio-based learning.

Program Response:

NVB

Primary facilities accommodating students, faculty, and staff of the School of Architecture include three buildings, Architecture East, Architecture West, and the Hinman Research Building. Architecture West houses administrative offices for the SoA, undergraduate architectural design studios, design jury spaces, lecture-style classrooms of various sizes and capacities, seminar rooms, computer labs, and faculty offices. Architecture East houses two other schools in the College of Design, contains faculty offices and classrooms that are sometimes used for studio lectures/reviews plus a space dedicated to exhibitions and reviews. The Hinman Research Building, constructed in 1939 and beautifully renovated in 2011, houses design studios for upper-level undergraduate and all graduate students including the M. Arch program. Hinman is also home to three of four Ph.D. research labs: the Digital Building Lab, the Shape Computation Lab and the High Performance Building Lab. The fourth lab, SimTigrate, is located in Tech Square in the Coda building. Review spaces and faculty offices are also located in Hinman.

All students in the M. Arch program currently have a dedicated studio desk. Most studio sections have a dedicated large monitor on wheels to allow faculty and students to quickly plug in and broadcast their work. Each studio section also has access to a dedicated pin up space either on walls or rolling panels. Increased enrollment has also reduced the amount of space available for studio sections to a point where the program now needs additional space.

Pin-up and review spaces are in Architecture East, Architecture West, and Hinman. The spaces in East and West are shared with the School of Industrial Design but the Hinman review spaces are dedicated to the SoA. With increased enrollment, dedicated review spaces have begun to be used for studio space, which will need to be addressed moving forward.

The Digital Fabrication Lab supporting the School's initiatives in digital design and fabrication is located on the edge of campus and houses a shop floor with industrial fabrication equipment in addition to faculty offices, one computer lab, conference rooms and space for two design studios used by faculty that actively use the lab as part of their projects.

For a virtual tour of spaces, please explore:

- Hinman Research Building <u>interactive Matterport tour</u> + <u>video walkthrough</u> + <u>interactive</u> tour of the 2022 Final Show
- Architecture East and West
- Digital Fabrication Lab (DFL) interactive Matterport tour

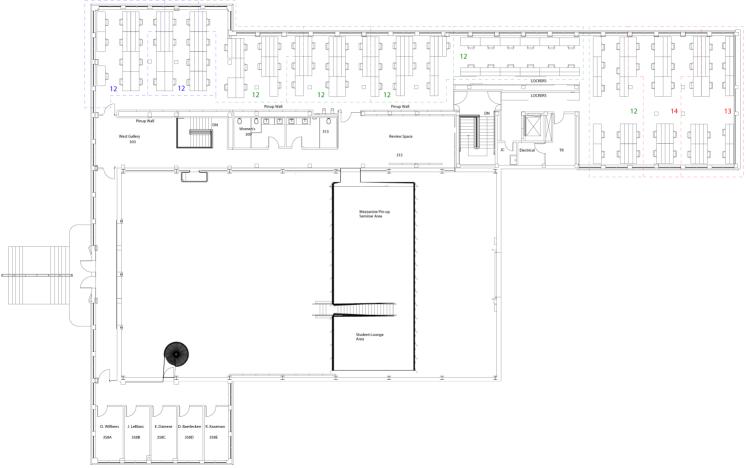
Below are floor plans of the Hinman Research Building where all M. Arch studios are held.

MWB



Hinman Research Building, Main Floor

MAB



Hinman Research Building, Mezzanine

5.6.2 Space to support and encourage didactic and interactive learning, including lecture halls, seminar spaces, small group study rooms, labs, shops, and equipment.

Program Response:

Reinsch-Pierce Family Auditorium

The College of Design's auditorium is one of few large lecture halls on the campus, and the Institute's registrar's office schedules its use. The 242-seat space is used for large classes as well as for the SoA lecture series and symposia and occasional film series. It is equipped with dual overhead video/digital projectors, and a sound system. The auditorium was renovated in 2013 to a state-of-the-art lecture hall.

Classrooms

The two Architecture Buildings have seven classrooms (total space 4,568 square feet). As with the auditorium, all classrooms on campus are scheduled by the registrar's office. Three are seminar rooms for 20-25 students each, and one is a lecture room with 70 fixed seats. The remaining three spaces have flexible seating capacities of 50-55. Each space is equipped with slide projectors and screens. Six of the seven have built-in digital projection capacity and TV monitors. With increased growth in enrollment, class sizes have also increased, making it difficult to secure classroom space to meet SoA demand.

Computer Laboratories



The College has two computer labs, Architecture West Room 358 and Room 359, totaling 2,700 square feet including a small separate control room. These labs are administered and maintained directly by the College and receive heavy use by all the academic programs. Both computer labs have large screen projection capacity for the display of a designated computer workstation, enhancing their instructional use. Rooms 358 and 359 are equipped with, respectively, twenty-four and forty high-end desktop PCs. These laboratories are primarily used by students from the SoA, the School of Industrial Design, and the School of City and Regional Planning for scheduled class instruction and, when not in scheduled class use, are available for project applications and/or individual undergraduate or graduate student studio activity.

Design Workshop

The wood and metal shops, totaling 3,313 square feet on the first floor of the Architecture East Building, serve the entire College of Design with the primary users being architecture and industrial design students. The shop is administered by the College and managed by the Director of Design Shops, Tripp Edwards, who is assisted by graduate and undergraduate student assistants. Edwards is an academic non-tenure track faculty member, and he supervises workshop safety instruction for every student before they are allowed to use any machine in the shop. He also runs advanced tutorials on an as-needed basis for smaller class groups to familiarize them with specialty machines and tools as may be required for advanced projects.

Digital Fabrication Lab (DFL)

The DFL was originally founded as the Advanced Wood Products Laboratory (AWPL) in 2001. At the time, the mission of AWPL was to support the growth of the wood products industry in the state of Georgia. AWPL conducted research activities and professional training workshops in support of that mission, while also serving related academic needs of the (then) College of Architecture. In 2010, the lab was reorganized into the DFL to better align with the research and academic visions of the College and the strategic plan of the Institute. The DFL is comprised of approximately 13,000 square feet of manufacturing and shop space, and approximately 5,000 square feet of office, lab, and instructional space.

Photography Studio

The Photo Lab is housed in the tunnel in the East Architecture building. While a compact space, it is equipped with professional lights and is well-suited for photographing architectural models.

5.6.3 Space to support and encourage the full range of faculty roles and responsibilities, including preparation for teaching, research, mentoring, and student advising.

Program Response:

All full-time faculty have dedicated office space. For some of the larger offices in Architecture West, faculty share offices. For part-time faculty, there is a dedicated shared office in the Hinman Research Building. All faculty have full access to the College of Design laser printing and plotting resources and supplies. Additionally, faculty are provided with laptop or desktop computers along with the full suite of software provided to the students and access to the College's vLab webbased access for file storage.

Research faculty are provided with furnished spaces for their research labs and centers. The DFL, described in detail above, serves as a shared lab space for several faculty members doing fabrication-based research and course delivery.

The recently renovated <u>Price Gilbert Library</u> offers a range of collaborative space, both private and semi-private, available by reservation by Georgia Tech faculty. See 5.8 for additional details on research and teaching resources in the library.

5.6.4 Resources to support all learning formats and pedagogies in use by the program.



Program Response:

Like all schools, Georgia Tech had to completely shift to online and hybrid teaching formats due to the global pandemic in March 2020. One of the lasting results of this was new equipped classrooms, labs, and studios with AV equipment to facilitate a range of teaching formats. Simultaneous to this, the Institute began providing the software and training for several video conferencing platforms including Microsoft Teams, BlueJeans, and Zoom. These platforms were integrated into Canvas, GT's course management platform, allowing faculty to fully integrate syllabi, course assignments, communication, grading, recorded lectures, and readings along with other course materials. While Georgia Tech is fully back in person, this infrastructure is in place and familiar to faculty and students and continues to enhance the teaching and learning experience. The Institute boasts a range of learning and technology initiatives through the Center for Teaching and Learning's Teaching with Technology Partnership.

The DFL provides a vast range of resources for material and making-based teaching and learning. The main shop space includes a single Kuka robot, 3D printing equipment, large format 5-axis CNC routing equipment, large-scale CNC plasma cutting machinery, high-end wood working power tools, plastic forming machinery, paint booth, concrete and masonry work area and equipment, materials characterization test area, and material storage. The lab also has a suite of small CNC machines for laser cutting, CNC foam cutting, and CNC metals milling to fill out our materials capabilities and to support the operations of the large format machines. A host of manual equipment for drilling, sanding, cutting, forming, welding, etc., complement the Digital equipment. The equipment supports research work and advanced coursework in digital design and fabrication. Classroom space supports architecture design courses and studios.

The Center for Teaching and Learning at Georgia Tech offers communication networks, resources, and innovative programs for faculty, postdoctoral scholars, and graduate students. https://ctl.gatech.edu/resources

If the program's pedagogy does not require some or all of the above physical resources, the program must describe the effect (if any) that online, off-site, or hybrid formats have on digital and physical resources.

Program Response: Not applicable during regular operations. During the COVID-19 pandemic, the SoA executed a blend of in-person, hybrid, and remote instruction, guided by USG and Institute guidelines.

5.7 Financial Resources

The program must demonstrate that it has the appropriate institutional support and financial resources to support student learning and achievement during the next term of accreditation.

Program Response:

The School of Architecture operating budget for all five degree programs consist of state funds, differential tuition from the Master of Architecture and Master of Science in Urban Design programs, and endowment funds. The SoA receives its state funds from the College of Design which receives its annual state budget allocation from the Institute and this budget is distributed across the five schools within the College. Differential tuition is a per student tuition addition of \$1,995 and 95% of this goes to the SoA, 5% to the Institute. This tuition is used to enhance the teaching and learning resources to the M. Arch program and is often used for part-time faculty, lectures and events, and studio support for materials and supplies. SoA also receives summer reimbursements to cover the costs for our summer courses along with summer incentive, which is a portion, based on teaching hours, of the extra funds that the Institute takes in for summer courses after all expenses are covered.



There are approximately forty-five SoA endowment funds that total approximately \$12.5M with the annual payout of approx. 4%. Endowment funds are typically earmarked for specific uses that fall into the following categories:

- Faculty positions
- Travel abroad
- Curriculum development
- Lectures
- Graduate fellowships
- Student academic awards
- Student organizations
- Faculty awards

The William H. Harrison Endowed Chair funds that are attached to the School Chair position can be used at the discretion of the Chair. The largest SoA endowment is the Thomas W. Ventulett III Distinguished Chair in Architectural Design, which covers the stipends and a portion of the salaries for the Ventulett Chair and the two Ventulett NEXT Fellows.

Each year, this operating budget must cover all SoA expenses including faculty and staff salaries, tuition stipends for GRAs and GTAs, office supplies and operating expenses, faculty travel and support, student travel and support, lectures and events, student recruiting expenses, final review expenses, and studio and curriculum support. Additional expenses that occur occasionally include faculty searches, faculty start-up packages, studio furniture, computers for faculty, and any other initiative deemed necessary by the school.

Below is a summary spreadsheet of the SoA operating budget from FY 2016 – FY2022 minus endowment funds. These are the state funds that the SoA receives from the College to run all five programs in the SoA.

| | FY 2016 | FY2017 | FY2018 | FY2019 | FY2020 | FY2021 | FY2022 |
|-------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Base State Budget | \$3,234,781 | \$3,354,660 | \$3,285,389 | \$3,320,619 | \$3,445,154 | \$3,061,660 | \$3,014,631 |
| Additional Funding | | | | \$140,752 | \$47,475 | \$246,871 | \$198,737 |
| Differential Tuition | \$427,797 | \$452,568 | \$477,537 | \$393,981 | \$441,749 | \$463,830 | \$562,706 |
| TOTALS | \$3,662,578 | \$3,807,228 | \$3,762,926 | \$3,855,352 | \$3,934,378 | \$3,772,361 | \$3,776,074 |

Below is the budget for FY2022 with more detail.



| SoA Budget (FY2022) | | Subtotals | Totals |
|---------------------------------|----------------------|------------------------------|----------------|
| Base State Budget | | | |
| Awarded State from CoD | | \$3,014,631.00 | |
| | | 4 3, 3 1 1, 3 1 1 2 1 | * |
| Base | State Budget TOTAL | | \$3,014,631.00 |
| Additional Funding Sources | | | |
| Summer Incentive | | \$81,000.00 | |
| Summer Reimbursement | | \$117,737.00 | |
| Additional Fun | ding Income TOTAL | | \$198,737.00 |
| | | | |
| M. Arch Differential Tuition | | | |
| M. Arch Summer Differential | | \$53,306.00 | |
| M. Arch Fall Differential | | \$225,076.00 | |
| M. Arch Spring Differential | | \$216,568.65 | |
| M. Arch | n Differential TOTAL | | \$494,950.65 |
| | | | |
| MSUD Differential Tuition | | | |
| MSUD Summer Differential | | \$7,587.00 | |
| MSUD Fall Differential | | \$32,219.00 | |
| MSUD Spring Differential | | \$27,950.00 | |
| MSUE | Differential TOTAL | | \$67,756.00 |
| | | | |
| Total Operating Budget (minus e | | \$3,776,074.65 | |

Below is a summary spreadsheet of the SoA budget and actual expenses for FY2022. Note that the difference between the available state funds and the actual expenses are made up with endowment funds and other miscellaneous funds (course buy-outs, extra funds provided by the college, and carry forward funds from previous years).



| Category | FY 2022 Budgeted Amount | Actual Expenses | Notes |
|------------------------------------|-------------------------------|-----------------|-------------------------------|
| Salaries | \$3,792,160.18 | \$3,756,341.28 | |
| Full-time Salary Faculty and Staff | \$2,806,225.90 | \$2,828,396.22 | |
| GTA, GRA Stipends | \$395,475.28 | \$428,567.43 | |
| Faculty Start-up Funds | \$51,300.00 | \$0.00 | included in salaries |
| PoP, PT Lecturers | \$444,543.00 | \$430,784.80 | |
| Guest Instructor Stipends | \$14,900.00 | \$0.00 | in SoA Operations/Supplies |
| Tech Temps / Hourly | \$79,716.00 | \$68,592.83 | |
| | | | |
| Faculty Travel, Support | \$35,000.00 | \$26,211.44 | |
| Student Travel/ Registration | \$4,000.00 | \$0.00 | used endowment funds |
| Lectures, Events | \$15,000.00 | \$0.00 | used endowment funds |
| Recruiting, Searches | \$10,000.00 | \$0.00 | used endowment funds |
| Final Reviews | \$9,300.00 | \$0.00 | used endowment funds |
| Studios & Curriculum Support | \$36,200.00 | \$0.00 | used endowment funds |
| SoA Operations / Supplies | \$62,000.00 | \$79,484.99 | |
| TOTALS | \$3,963,660.18 | \$3,862,037.71 | |

5.8 Information Resources

The program must demonstrate that all students, faculty, and staff have convenient and equitable access to architecture literature and information, as well as appropriate visual and digital resources that support professional education in architecture.

Program Response:

Architecture Literature and Information

The Georgia Tech library contains about 415,000 physical books and over 2,347,000 electronic books. Book selection in design and related fields is the responsibility of the architecture subject specialist librarian and archivist. Faculty and student input is an essential part of the process. The library's collection development policy has been updated to reflect the current mission, goals, and curriculum of the School of Architecture. Students, staff, and faculty may also request materials through the library website.

Currently, the library has 1,179 (1,140 electronic + 39 print) current subscriptions to print and electronic journals for the College of Design. The basic journals in architecture and related fields are represented and support the curriculum, as well as faculty teaching and research. Georgia Tech students and faculty have online access to important databases, such as the Avery Index to Architectural Periodicals, ArtStor, Architecture & Design Archive, Birkhäuser Building Types Online, BuildingGreen Suite, DETAIL, Ebsco Art & Architecture Complete, and Sanborn Fire Insurance Maps Online. These and many more databases are accessible from the library's website 24/7.



The library provides electronic reserves for faculty to provide their students with online access to scanned images from class lectures, as well as course syllabi and reserve readings. Thus, students have 24/7 access to an entire "course package" on electronic reserves. The library is open 168 hours per week, except during semester breaks. The central library provides a latenight study hall for students. The library is open to all and is a barrier-free facility. Students may borrow as many books as they wish for the entire semester, and the loan period for faculty is one year. The exception is the Archives. Access to the Archives Reading Room is controlled by the Georgia Tech Archives Staff and Faculty due to the preservation of materials.

Within a unique partnership, Georgia Tech and Emory University libraries operate the state-of-the-art, climate-controlled Library Service Center (LSC) facility. Students, faculty, and staff from Emory and Georgia Tech can use the center. This partnership supports the creation of a seamless shared collection, making more Emory Library resources available to Georgia Tech students, faculty, staff, and vice versa. With a focus on user needs, the goal is to provide the best possible service and access to these materials. The LSC represents a new approach to the libraries' mission of preservation and collection of scholarship. The materials in the Library Service Center are stored at 55 degrees and 30 percent humidity, providing optimal, long-term preservation and retention for print and microform collections. Under these conditions, books, papers, and documents will be preserved for more than 250 years. The LSC is located on the Emory University's Briarcliff Campus, which is about three miles from Georgia Tech and there is regular "Stinger" shuttle bus service (route 5) between the campuses.

Digital Resources

Students in the M. Arch program are required to purchase a laptop computer per recommended specs, updated annually and available on the SoA website. The School of Architecture has two primary physical computer labs [consisting of 90 computers (West Arch room 358 (#24), room 359 (#40). These labs also contain flatbed scanners and color/B&W printers and large format plotters located nearby.

The College of Design also maintains a virtual lab (vLab) that can be accessed via internet on the student's personally owned computer. It provides most of the software applications installed in the computer labs and a list of available software is available here. All College of Design labs are available 24 hours a day to students and faculty. In West Architecture, there is a printing/plotting office that contains a high resolution wide-format scanner, three HP Design Jet plotters, and color/B&W printers.

Nearly every building on the Georgia Tech campus has wireless coverage, including all classrooms and most labs and common spaces. The campus has full coverage in all residence halls, as well as significant coverage of outdoor walking paths, benches, bus stops, and bus routes. Many campus locations – classrooms and the library for example – also provide wired LAN ports.

Further, the program must demonstrate that all students, faculty, and staff have access to architecture librarians and visual resource professionals who provide discipline-relevant information services that support teaching and research.

Program Response:

The Georgia Tech Library has two subject specialists for Architecture: a subject specialist Librarian (Catherine Manci) and a subject specialist Archivist (Jody Thompson). The subject specialist Librarian and Archivist for architecture are two of twenty-four librarians and archivists with faculty status at the Georgia Tech Library. The Librarian has a master's degree in library and information science, as well as subject expertise in design gained from three years of experience

NVB

as a reference and instruction librarian at an art and design school, followed by three years of experience as a librarian at the Georgia Tech Library. The Archivist has a master's degree in history and has experience working with design archival collections, both physical and born-digital. Students, staff, and faculty in the School of Architecture also work with the Multimedia Instruction Librarian and the Patents Coordinator/Librarian to meet the various research and instruction needs of the school.

Every semester the architecture subject specialist Librarian and Archivist provide instruction to architecture classes on topics such as an overview of library resources, assignment specific instruction using library resources, and archival research skills. The library also provides training on Endnote and Zotero, the bibliographic software popular with faculty and students, and an overview class on Patents and Trademarks. The Librarian and Archivist have created an online research guide for architecture viewable from the library website. The architecture subject specialist Librarian and Archivist regularly consult individually with students on assignments and research projects.

6—Public Information



The NAAB expects accredited degree programs to provide information to the public about accreditation activities and the relationship between the program and the NAAB, admissions and advising, and career information, as well as accurate public information about accredited and non-accredited architecture programs. The NAAB expects programs to be transparent and accountable in the information provided to students, faculty, and the public. As a result, all NAAB-accredited programs are required to ensure that the following information is posted online and is easily available to the public.

6.1 Statement on NAAB-Accredited Degrees

All institutions offering a NAAB-accredited degree program or any candidacy program must include the exact language found in the NAAB Conditions for Accreditation, 2020 Edition, Appendix 2, in catalogs and promotional media, including the program's website.



Program Response:

The exact language is located here: https://arch.gatech.edu/accreditation

6.2 Access to NAAB Conditions and Procedures

The program must make the following documents available to all students, faculty, and the public, via the program's website:

- a) Conditions for Accreditation, 2020 Edition
- b) Conditions for Accreditation in effect at the time of the last visit (2009 or 2014, depending on the date of the last visit)
- c) Procedures for Accreditation, 2020 Edition
- d) Procedures for Accreditation in effect at the time of the last visit (2012 or 2015, depending on the date of the last visit)

Program Response:

The <u>School of Architecture website</u> describes the accreditation process and includes links to the following documents:

- Conditions for Accreditation, 2009 Edition
- Procedures for Accreditation, 2012 Edition
- Conditions for Accreditation, 2020 Edition
- Procedures for Accreditation, 2020 Edition

6.3 Access to Career Development Information

The program must demonstrate that students and graduates have access to career development and placement services that help them develop, evaluate, and implement career, education, and employment plans.

Program Response:

The <u>School of Architecture website</u> provides useful links regarding career services.

Career advising and mentoring is provided by the faculty in the School of Architecture. Students may arrange for individual meetings with the faculty and are strongly encouraged to attend the annual School of Architecture Career Fair. Students may contact School of Architecture faculty members directly to schedule an appointment or arrangements can be made through the School's Advising Office.

The <u>Georgia Tech Career Services</u> staff encourages students to realize their full potential by assisting them in obtaining educational and occupational information, developing effective job search skills, and ultimately attaining their employment and/or graduate school goals. Their program and services include career counseling, Career Fairs, and seminars, coaching on resume writing and interview skills, and an internship/job board. At the Career Center, staff member Davia Woulard is devoted to the College and maintains offices in the Career Center and the College of Design.

6.4 Public Access to Accreditation Reports and Related Documents

To promote transparency in the process of accreditation in architecture education, the program must make the following documents available to all students, faculty, and the public, via the program's website:

- a) All Interim Progress Reports and narratives of Program Annual Reports submitted since the last team visit
- b) All NAAB responses to any Plan to Correct and any NAAB responses to the Program Annual Reports since the last team visit



- The most recent decision letter from the NAAB
- d) The Architecture Program Report submitted for the last visit
- e) The final edition of the most recent Visiting Team Report, including attachments and addenda
- f) The program's optional response to the Visiting Team Report
- g) Plan to Correct (if applicable)
- h) NCARB ARE pass rates
- i) Statements and/or policies on learning and teaching culture
- j) Statements and/or policies on diversity, equity, and inclusion

Program Response:

- a-h) The School of Architecture makes these documents available here: https://arch.gatech.edu/accreditation
 - i) Learning and Teaching Culture is available here: https://arch.gatech.edu/studio-culture
 - k) Institute policies on DEI are here: https://diversity.gatech.edu/. SoA Statement on Anti-Racism is available here: https://arch.gatech.edu/our-commitment-antiracism

6.5 Admissions and Advising

The program must publicly document all policies and procedures that govern the evaluation of applicants for admission to the accredited program. These procedures must include first-time, first-year students as well as transfers from within and outside the institution. This documentation must include the following:

- a) Application forms and instructions
- b) Admissions requirements; admissions-decisions procedures, including policies and processes for evaluation of transcripts and portfolios (when required); and decisions regarding remediation and advanced standing
- Forms and a description of the process for evaluating the content of a non-accredited degrees
- d) Requirements and forms for applying for financial aid and scholarships
- e) Explanation of how student diversity goals affect admission procedures

Program Response:

The <u>School of Architecture website</u> or Institute websites include links to resources to help students in their respective degree programs. Links to these resources are provide below.

- a) Application forms and instructions (graduate admissions portal direct link here)
- b) Admission requirements
- c) Evaluation process for evaluating non-accredited degrees (see 4.3.2)
- d) Financial aid and scholarships
- e) How diversity goals affect admission procedures

6.6 Student Financial Information

6.6.1 The program must demonstrate that students have access to current resources and advice for making decisions about financial aid.

Program Response:

Every applicant to the M. Arch program is considered for available funding. No additional application is needed. A ranked list of both 2- and 3.5-year applicants is developed during the review process and top applicants are offered funding until all are accepted. This includes both U.S. and International applicants. Information related to financial aid is available to all students at the following links:

- https://arch.gatech.edu/preparing-your-application
- https://finaid.gatech.edu/graduate-types-aid/ (Institute-wide)



6.6.2 The program must demonstrate that students have access to an initial estimate for all tuition, fees, books, general supplies, and specialized materials that may be required during the full course of study for completing the NAAB-accredited degree program.

Program Response:

Information related to tuition and other costs is available to all students through the Georgia Tech website at the following links:

• https://finaid.gatech.edu/costs/graduate-costs



APPENDIX A: Faculty Resumes

Name: Logman Arja

Courses Taught (Four semesters prior to current visit):

ARCH 1060: Introduction to Design and the Built Environment

ARCH 2017: Architecture Studio III

ARCH 3016: Architecture Studio IV

ARCH 4833/8833: Additive Manufacturing

Fall 2021

Fall 2021

Spring 2022

Educational Credentials:

University of California Berkeley (2019), MArch, Architecture City University of New York (2016), M.S. Sustainability in the Urban Environment University of Juba, Sudan (2012), B.S. Architecture

Teaching Experience:

Georgia Institute of Technology, School of Architecture (Fall 2021 – present)
Visiting Assistant Professor and Ventulett NEXT Fellow
University of Oregon, School of Architecture (Fall 2020 – Spring 2021)
Visiting Assistant Professor
University of California Berkeley, College of Environmental Design (Fall 2019 – Spring 2020)

Lecturer in Architecture

Professional Experience: N/A

Licenses/Registration: N/A

Selected Publications and Recent Research:

Graduate Student Research, College of Environmental Design, UC Berkeley (2016-2019)

Clay Cooking Stove (TRIPLE C)

Mud Frontiers (Hearth, Beacon, Lookout and Kiln)

Cabin of 3D Printed Curiosities Coral Reef Seeding Units

Professional Memberships: N/A



Name: Sonit Bafna

Courses Taught (Four semesters prior to current visit):

ARCH 4803/8803 Junior Studio Spring 2021
ARCH 6070 Theories of Inquiry Spring 2020
ARCH 6350 Arch Theory 1 Fall 2020

ARCH 6352/8803 Mind and the Built Environment Fall 2020-21, Spring 2020

ARCH 7350 Foundations of Arch Theory Fall 2021

Educational Credentials:

Georgia Institute of Technology (2002), PhD in Architecture Massachusetts Institute of Technology (1993), M.S. Architectural Studies Center for Environment Planning and Technology (1990), 5-year professional diploma in Arch

Teaching Experience:

Georgia Institute of Technology, School of Architecture (Aug. 2008 – present)
Associate Professor; (Jan. 2002 – Jul. 2008) Assistant Professor; (Aug. 1997 – Apr. 2001) Instructor

University of Michigan at Ann Arbor, Taubman College of Architecture and Planning (Aug. 2001 – Dec. 2001) Lecturer

Emory University, Department of Art History (Aug. 1999, May 2001) Lecturer

Professional Experience:

Anant Raje and Associates. Ahmedabad, India, Assistant Architect (Mar. 1990 – Jun. 1991)

Kiran Pandya and Associates. Ahmedabad, India, Architectural Intern (May 1987 – Oct. 1987

Licenses/Registration: N/A

Selected Publications and Recent Research:

(forthcoming) Bafna, S. Imaginative Reasoning in the Shaping of Buildings. New York: Routledge, expected 2022.

Bafna, S., Maitra, K. K., Lim, Y., Shah, M., & Chen, Y.-A. 2021. Association between home layout connectivity and cognitive ability in community dwelling older adults: Implication for occupational therapy. Journal of Design for Resilience in Architecture and Planning, 2(special issue), 18–33.

Bafna, Sonit. ""How Architectural Drawings Work - and What That Implies for the Role of Representation in Architecture." In Architectural Notation: How Imagination, Drawing, and Building Refer to One Another, edited and translated by Myung Seok Hyun, 147–213. Seoul, Korea: Architwins, 2021

"The Environmental Shaping of the Mind," Invited talk for the Annual Lecture Series of Lewis College of Nursing, Georgia State University, December 10, 2021.

Professional Memberships: SAH



Name: Daniel Baerlecken

Courses Taught (Four semesters prior to current visit):

ARCH 2020 Arch Media & Modeling Fall 2021, Summer 2021, Fall 2020

ARCH 4803/8803 Parametric Design Fall 2021, Spring 2021

ARCH 4833/8833 Core III Studio

ARCH 8855 Arch Design & Research Studio II

ARCH 3016 Architecture Studio IV

Summer 2021

Spring 2021

Fall 2020

Educational Credentials:

RWTH Aachen University, Germany (2003), Diplom Ingenieur (Diploma in Engineering/Architecture) with honors

University of Applied Arts Vienna, Austria (2001-2003) Master Class: Professor Zaha Hadid

RWTH Aachen University, Germany (1998), Vordiplom (prediploma) in Engineering/Architecture

Teaching Experience:

Georgia Institute of Technology, School of Architecture (Jul. 2010 – present) Assistant Professor; (Jan. 2008 – Jun. 2010) Visiting Assistant Professor

RWTH Aachen University, Germany, Faculty of Architecture (Mar. 2007 – Aug. 2009)

Visiting Lecturer; (Sep. 2006 – Mar. 2007) Research Associate

Technical University Braunschweig, Germany, Faculty of Architecture (Jan. 2007 – Dec. 2007)

Research Associate

Professional Experience:

BFR lab (office locations: Cologne, Germany; Langenthal, Switzerland; and Atlanta, Georgia)

Principal, 2006 – Present

Zaha Hadid Architects, London, United Kingdom

Consultant for Digital Fabrication (Aug. 2006 – Aug. 2007); Design and Project Architect (Jul. 2003 – Jul. 2006)

Licenses/Registration:

Registered Architect, Germany (Nov. 2005 – Present)

Selected Publications and Recent Research:

Baerlecken, D., Gentry, R., Swarts, M., & Wonoto, N. (2014). Structural, Deployable Folds - Design and Simulation of Biological Inspired Folded Structures. International Journal of Architectural Computing, 12(3), 243-262. Special Issue: Design Agency: Pluridisciplinary Models in Design Research and Architecture.

Professional Memberships:

Member of the Chamber of Architects North-Rhine Westphalia, Germany, (Nov. 2005 – Present)

Member of Bund Deutscher Architekten (BDA, Translation: Association of German Architects; Constituted by leading German architects), Germany, (2011 – Present)



Name: Mark Cottle

Courses Taught (Four semesters prior to current visit):

| ARCH 3017: Junior Design Studio | Spring 2021 |
|--|-----------------|
| ARCH 3135: City Literacy Seminar | Spring 2020 |
| ARCH 3855: Junior Design Studio | Spring 2020 |
| ARCH 4128: Barcelona Architecture Seminar | Spring 2020 |
| ARCH 4804: Ways of Seeing Seminar | Spring 2020 |
| ARCH 4855: Senior Design Studio | Spring 2020 |
| ARCH 6039: Advanced Architecture I Studio | Fall 2021, 2020 |
| ARCH 6352/6833/4833: Left Hand of Darkness Seminar | Fall 2021, 2020 |
| ARCH 8803: White: The Other Color | Spring 2021 |

Educational Credentials:

Harvard Graduate School of Design (1989), Master of Design Studies in Theory and Criticism

Rice University School of Architecture (1988), Master in Architecture Clemson University (1979), Bachelor of Arts in English, minor in music theory and composition

Teaching Experience:

Georgia Institute of Technology, College of Design (Spring 2007 – present) Associate
Professor with tenure; (Fall 2001 – Spring 2007) Assistant Professor; (Fall 1999
– Spring 2001) Visiting Assistant Professor

Rhode Island School of Design Department of Architecture (Spring 1999, 1998) Visiting Critic

University of Hawai'i School of Architecture (Fall 1998) Visiting Professor Boston Architectural Center (Fall 1987 – Spring 1993) Studio and Course Instructor, Thesis Advisor

Professional Experience:

Cottle Khan Architects, Atlanta, Principal (Aug. 1995 – Present) Projects include: Cobb-DeWinne Residence, Decatur, Georgia.

Tagami residence, Decatur, Georgia.

Licenses/Registration: N/A

Selected Publications and Recent Research:

(forthcoming) The Cost of Money: Raft. Solo installation/exhibition at the Mies van der Rohe Pavilion, Barcelona. Tentatively scheduled for May 2023.

The Left Hand of Darkness: Shadow Structures. School of Architecture exhibition in the Cohen Gallery.

I See What You Did There: Work from the Architecture Undergraduate International Studio in Barcelona. School of Architecture exhibition in the Cohen Gallery. Curated in collaboration with Helen Fialkowski and Sabir Khan. 30 October to 15 November 2019.

Professional Memberships: N/A



Name: Elisa Dainese

Courses Taught (Four semesters prior to current visit):

ARCH 2112/6106 History of Architecture II
ARCH 3016 Architecture Studio IV
ARCH 4823/8823 Architecture and Decolonization

Spring 2022 Fall 2021 Fall 2021

Educational Credentials:

IUAV University of Venice, Italy (2012), PhD in Architecture IUAV University of Venice, Italy (2008), M. Arch Architecture and Sustainability IUAV University of Venice, Italy (2005), BA Architecture

Teaching Experience:

Georgia Institute of Technology, School of Architecture (Fall 2021 – present)
Assistant Professor of History and Theory of Architecture
University of Pisa, Italy, Faculty of Engineering and Architecture (2021) Visiting Fellow
Dalhousie University, Montreal, Nova Scotia, Canada, School of Architecture (2017 – 2021)

Professional Experience:

Centre Canadien d'Architecture (CCA) Visiting Scholar, Montreal, Canada (2018) Columbia University, Italian Academy for Advanced Studies in America, NY (2016)

Licenses/Registration:

2008-13 Licensed and Registered Architect in Architecture and Sustainability, Chamber of Architects, Italy. Ordine degli Architetti di Padova (Italian equivalent for AIA)

Selected Publications and Recent Research:

- Dainese, E., The Construction of the Charter of 'Habitat': From the Functional City to the African Village / La Costruzione della Carta dell'Habitat: Dalla Città Funzionale al Villaggio Africano (Rome: Bruno Zevi Foundation, 2018)
- Dainese, E., Staničić, A. War Diaries: Design after the Destruction of Art and Architecture (Charlottesville: University of Virginia Press, 2022)
- "Women Ethnographers and Photographers of African Spatial Culture" in Lori Brown, Karen Burns (eds.), The Global Encyclopedia of Women in Architecture, 1960-2015 (UK: Bloomsbury Publishing, 2023).
- "Colonial Urban Design and African Villages: Gutkind's Theories on Nucleated Development" in Histories of Urban Design Conference Proceedings (gta Institute, ETH, Zurich, 2022, Abstract).
- Pancho Guedes' Architecture in Mozambique—Columbia University, GSAPP, New York (USA). Guest Lecture for Professor Mary McLeod's graduate seminar "Modernism and the Vernacular"; March 19th, 2022.

Professional Memberships:

Member of the SAH Board of Directors, Society of Architectural Historians, Chicago (2022-25) Associate Administrator of the SAH Women in Architecture Affiliate Group, Society of Architectural Historians, Chicago (2021-24)



Name: Harris Dimitropoulos

Courses Taught (Four semesters prior to current visit):

ARCH 1017 Freshman Design Studio Fall 2021
ARCH 1020 Media Modeling I Spring 2021
ARCH 2017 Sophomore Design Studio Spring 2021
ARCH 4833/8833 Media Modeling I Fall 2021

Educational Credentials:

Georgia Institute of Technology, Atlanta (1984), M. Arch Aristoteleion University, Thessaloniki, Greece (1983) Ph.D N.T.U., Athens, Greece (1977), B. Arch Art with Vlassis Caniaris, Athens, Greece, (1980-1983)

Teaching Experience:

Georgia Institute of Technology, School of Architecture (1992 – present) Associate Professor; (1986 – 1992) Assistant Professor; (1985) Instructor Atlanta College of Art (1990 – 1994) Adjunct Professor N.T.U., School of Architecture, Greece (1981 – 1983) Instructor

Professional Experience:

27 torch gate, Atlanta, GA: Architect (1996)

Monument for the Bicentennial of French Revolution, Atlanta and Paris: Architect (1987 – 1989)

Freelance architect in Atlanta (1986 – 1987) Heery and Heery, Atlanta: Designer (1984)

Agni Pikioni office Athens, Greece: Architect (1981 – 1983)

Panayotis Touliatos office Athens, Greece: Architect (1978 – 1981) Francis Gulielmo office, Athens, Greece: Intern (1975 – 1977)

Licenses/Registration:

N/A

Selected Publications and Recent Research:

H. Dimitropoulos with John Lauer, Brad Brooks, Claire Downey and Susan Desko, Four Down South, Nexus Press. 1990

Dimitropoulos, H. The Character of Contemporary Memorials, Places. Volume 21, Number 1, Spring 2009

"Psychological Parameters in the Formation of Place", with Stuart Romm. Peer Reviewed paper presented at the 101 CBU conference in Tokyo, November 2002. Paper included in the proceedings of the conference on CD.

Professional Memberships:

N/A



Name: Ellen Dunham-Jones

Courses Taught (Four semesters prior to current visit):

ARCH 4803/6100/6352 Retrofitting Suburbia/Theory Two

ARCH 4803/6151/6352 Theories of Urban Design

ARCH 8903/7014/6050 SP/Urban Design Studio/D+R Studio

Annual ULI Hines Competition

Spring 2021 Fall 2021 Spring 2021 (November – April)

Educational Credentials:

Princeton University (1983), Master of Architecture Princeton University (1980), A.B. in Architecture and Planning

Teaching Experience:

Georgia Institute of Technology, School of Architecture (2010 – present) Professor; (Jan. 2001 – Jul. 2009) Director, Architecture Program; (Jul. 2000 – Mar. 2010) Associate Professor; (Jul. 2000 – Jan 2001) Part-Time, Director Designate Massachusetts Institute of Technology (Jul. 1997 – Jul. 2000) Associate Professor; (Jul. 1993 – Jul. 1997) Assistant Professor

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Professional Experience:

Ellen Dunham-Jones Urban Design: Principal (2016 – Present)

Ellen Dunham-Jones Architect: Principal (1997 – 2015)

Dunham-Jones & LeBlanc Architects, VA & MA: Principal (1987 – 1997)

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Licenses/Registration:

Registered Architect, New York State (1989 – 2015)

Selected Publications and Recent Research:

Williamson, J., & Dunham-Jones, E., Case Studies in Retrofitting Suburbia: Urban Design Strategies for Urgent Challenges. Hoboken: John Wiley & Sons. 2021

Dunham-Jones, E., "Advance Party," one of 7 international urban and cultural critics invited to contribute an essay on how the pandemic has changed thinking, Monocle, no. 145, July/August p.67 (United Kingdom) 2021

Host, REDESIGNING CITIES: The Speedwell Foundation Talks @ Georgia Tech, 9 live events, 25 podcasts and videos thanks to \$350,000 donation. 2018-present

"The Shift From Cities to Suburbs," with June Williamson, Lambda Alpha International, virtual conference 2021

"Retrofitting Suburban Dependence on Cars," Podcar City Conference 2021, Atlanta 2021

Professional Memberships:

Member, Board of Stewards, International Making Cities Livable, (2020 – present) Selection Committee, Vincent Scully Prize, National Building Museum, (2017 – 2020)



Name: Athanassios Economou

Courses Taught (Four semesters prior to current visit):

ARCH 1017 First Year Design Studio Spring 2021

ARCH 3016 Junior Design Studio Fall 2020

ARCH 6049 Arch Design Studio Fall 2021

ARCH 6508/8803 Shape Grammars Fall 2021, 2020

ARCH 8903 Special Problems Fall 2021

ARCH 8999 PhD Prep Doct Dissertation Fall 2021, Spring 2020, Spring 2021

Educational Credentials:

University of California, LA, School of Architecture (1998) PhD in Design Theory and Methods

University of Southern California, School of Architecture (1992) M. Arch National Technical University of Athens, Greece, Dept. of Architecture (1990) Dipl. Arch

Teaching Experience:

Georgia Institute of Technology, School of Architecture (2016 – present) Professor; College of Computing (2020 – present) Adjunct Professor; School of Architecture (2003 – 2016) Associate Professor; (1997 – 2003) Assistant Professor

Massachusetts Institute of Technology (2001 – 2011) Visiting Associate Professor Univ. of Michigan Ann Arbor, College of Architecture (2001) Visiting Assistant Professor Univ. of California, Los Angeles, School of Architecture (1996 – 1997) Lecturer; (1994 – 1996)

Univ. of Southern California, School of Architecture (1990 – 1992) Teaching Assistant

Licenses/Registration:

Shape Machine for Rhino (Windows/Mac Plugin): Co-developed with TK Hong. C#/C++Programmers: YT Chung and J Garbers, August 2021-Current

Selected Publications and Recent Research:

Economou A, Hong K., Ligler H, and Park J., "Shape Machine: A Primer in Visual Composition", J.-H. Lee (ed.), A New Perspective of Cultural DNA, KAIST Research Series, Springer Nature Singapore Pte Ltd, pp. 65-92. 2021.

Yu Y., Hong TK., Economou A., Paulino G. "Rethinking Origami: On the Generation of Origami Patterns in Shape Machine", Computer-Aided Design, ISSN: 0010-4485, Vol: 137, Page: 103029, 2021

Economou A. "Durand Redrawn: A Formal Description of Durand's "Précis of the Lectures on Architecture"", Conference Proceedings of NEXUS 20/21: Relationships Between Architecture and Mathematics, Kaiserslautern, Germany, pp. 101-106, 2021.

Hong TK, Economou A. "Five Criteria for Shape Grammar Interpreters". Design Computing and Cognition DCC'20, J.S Gero (ed) Springer, pp.189-208, 2021.

Is Scripting Shaping? SIGRADI Panel Discussion, Klaus 1116, Georgia Institute of Technology, Atlanta, November 11, 2021

Professional Memberships: N/A



Name: Michael Gamble

Courses Taught (Four semesters prior to current visit):

ARCH 6039 Advanced Studio 1 (Coordinator)
ARCH 6072 Design and Research Studio

ARCH 7102 Integrated Building Systems II

ARCH 7103 Integrated Building Systems III

Fall 2021, 2020 Spring 2020 Spring 2021, 2020 Fall 2021, 2020

Educational Credentials:

Harvard University (1996) Master of Design Studies Georgia Institute of Technology (1991) Master of Architecture Auburn University (1989) Bachelor of Architecture

Teaching Experience:

Georgia Institute of Technology, School of Architecture (2015 – present) Director, M. Arch Program; (2007 – present) Associate Professor; (2011 – 2013) Associate Chair of Professional and Undergraduate Studies; (2010) Interim Curriculum Coordinator, Graduate and Undergraduate Program; (2001 – 2007) Assistant Professor; (1997 – 2000) Visiting Assistant Professor

Professional Experience:

Gamble and Gamble Architects: Principal and Owner (1996 – Present)

Licenses/Registration:

Registered Contractor, State of Georgia, RLC 1001404 (2007 – Present) Registered Architect, State of Florida, No. 92603 (2001 – Present) Registered Architect, State of Georgia, No. 8186 (1993 – Present)

Selected Publications and Recent Research:

Gamble, Michael. Climate Change and Design of the Built Environment, with Kendall Hunt Publishing (2020-2022)

Gamble, Michael. (2020). "Rising Ambitions. Existential Challenges". Introduction to volume II of "Building the Carbon Positive City", The Portman Prize Studio Journal. In house publish.

Gamble, Michael. (2021-22). "Timber in the City 4: Urban Habitats", invited to write and organize an international competition hosted by the American Associate Collegiate Schools of Architecture, Washington DC.

Professional Memberships:

National Council of Architecture Review Boards Certificate No. 46,896 Member, American Institute of Architects



Name: Russel Gentry

Courses Taught (Four semesters prior to current visit):

ARCH 4015/6015 Structures 1 Fall 2020 ARCH 6252 Building Structures 2 Spring 2020

ARCH 6513 Building Systems and Data Spring 2021, Spring 2020 ARCH 8833 Integrated Building Systems 1 Fall 2020

ARCH 8873 Integrated Building Systems 3 Fall 2021, Fall 2020

Educational Credentials:

University of Michigan (1992) PhD in Civil Engineering (Structures) Georgia Institute of Technology (1986) M.S.C.E. + (1985) B.C.E

Teaching Experience:

Georgia Institute of Technology, School of Architecture (2018 – present) Director, MS Programs; College of Design (2020 – present) Director, Digital Building Laboratory; (1997 – 2001) Assistant Professor; (2001 – present) Associate Professor; (2001 – 2009) Associate Director of R+D Advanced Wood Products Laboratory

Queen's University Belfast (2019 – 2020) Visiting Research Professor The Catholic University of America, Department of Civil Engineering Washington, DC (1992 – 1997) Assistant Professor

Professional Experience:

Gardner and Howe, PC Memphis, Tennessee (1996 – 1998): Structural Engineer

Licenses/Registration: Professional Engineer in GA and NC (1999-present)

Selected Publications and Recent Research:

Sharif, Shani and Gentry, Russell (2022) "Robotic sheet metal folding: Tool vs. material programming", Automation in Construction, Volume 134,

Delaney, Emma Louise, McKinley, Jennifer M., Megarry, William, Graham, Conor, Leahy, Paul G., Bank Lawrence C. and Gentry, Russell (2021), "An Integrated Geospatial Approach for Repurposing Wind Turbine Blades", Resources, Conservation and Recycling.

Kiernicki, C.S., Kakkad, S.D., Bermek, M.S. and Gentry, T.R. (2022) "A Digital Process for Reconstructing Wind Turbine Blade Geometry from Point Cloud Data", 5th Annual Meeting of the International Conference for Structures and Architecture, 6-8 July 2022, Aalborg, Denmark, under review.

Georgia Tech Invention Disclosure: Solar PV Rack Assembly for Rapid Configuration Change to Resist Wind Loading, Russell Gentry, 2021.

Gentry, Russell (2021) "Systems Thinking in Architecture: Case Study of Mass Timber", Southern Illinois University, School of Architecture, 25 October 2021.

Professional Memberships:

ASTM, GA State Committee - Sustainable Biomaterials, Natl. Science Foundation, Fellow IIFC



Name: George Johnston

Courses Taught (Four semesters prior to current visit):

ARCH 3016 Arch Studio 4 Fall 2021 ARCH 3017 Arch Studio 5 Spring 2021 ARCH 3855 Arch Design Studio V Spring 2020

ARCH 4316/6313 Traditions of Architectural Practice Fall 2021, Spring 2020/21

Fall 2020

ARCH 4833/8833 Collage Making

ARCH 4901/8901 Spcl Prob: Plan Making Workshop Spring 2021 ARCH 6039 Advanced Studio 1 Fall 2020

ARCH 8903 Special Problems Fall 2020, Spring 2020 ARCH 8996 Dissertation Prep Fall 20/2021, Spring 2020/21

Educational Credentials:

Emory University (2006) PhD in American Studies/Cultural History Rice University (1984) Master of Architecture Mississippi State University (1979) Bachelor of Architecture

Teaching Experience:

Georgia Institute of Technology, School of Architecture (2010 – present) Professor; (1991 – 2010) Associate Professor; (1984 – 1991) Assistant Professor Rice University, School of Architecture (1984) Instructor Part-time

Professional Experience:

Johnston+Dumais [architects] (1992 – present): Partner Parker & Scogin Architects, Atlanta (1985): Staff Architect

Licenses/Registration:

Registered Architect in Mississippi (1984 – present) Registered Architect in Georgia (1984 – present) NCARB Certificate Holder

Selected Publications and Recent Research:

Guo, W., & Johnston, G. B. (2021). "Cross Cultural Currents in Early 20th Century Chinese Architectural Practice." Paper presented at the Expanding the View: Proceedings of the 109th ACSA Annual Meeting, Virtual Conference.

Johnston, G.B. (2020) Assembling the Architect: The History and Theory of the Profession. London: Bloomsbury.

Johnston, G. (2020) Redefining the Profession/Interviewer: M. Lefevre. Design Intelligence Quarterly (Vol 3), Design Intelligence LLC, Atlanta.

Professional Memberships:

ACSA, SESAH, CHSA



Name: Keith Kaseman

Courses Taught (Four semesters prior to current visit):

ARCH 3016 Junior Design Studio Fall 2020

ARCH 6029 Core 2 Design Studio Fall 2021, Spring 2021

ARCH 7030 Media + Modeling III Fall 2021
ARCH 8833/4833 Robotic Operations Spring 2020
ARCH 8833/4833 Advanced Productions Fall 2020

Educational Credentials:

Columbia University, Graduate School of Architecture, Planning and Preservation, New York, NY (2001) Master of Architecture

Arizona State University, Tempe, AZ (1995) Bachelor of Science in Design and Architecture

Teaching Experience:

Georgia Institute of Technology, School of Architecture (2017 – present) Assistant Professor, Coordinator of MS Architecture | Advanced Productions, Director, Spatial Futures Lab; (2016 – 2017) Lecturer + Studio Critic

University of Tennessee Knoxville, College of Architecture and Design (2014 – 2016) Lecturer + Studio Critic

Columbia University GSAPP (2014 – 2015) Adjunct Research Scholar; (2013 – 2014)
Director, MEGAMINX LAB; (2008 – 2013) Adjunct Associate Professor; (2005 – 2008) Adjunct Assistant Professor

University of Pennsylvania School of Design, Department of Architecture (2012 – 2013) Lecturer; Department of Landscape Architecture (2004 – 2013) Lecturer + Studio Critic

Professional Experience:

KBAS LLC, New York, Alexandria, Philadelphia, Knoxville (2003 – present): Partner SHoP Architects, New York (2000 – 2003): Designer + Project Manager

Licenses/Registration: N/A

Selected Publications and Recent Research:

Kaseman, Keith and Graser, Konrad, "Digital fabrication in the construction sector", Chapter in Construction 4.0-Innovation Platform for the Built Environment, Co-Editors, Anil Sawhney, Mike Riley, and Javier Irizarry. Taylor & Francis, 2020 (Published, 2 Citations).

"Questioning Architectural Research", Sociedad Iberoamericana de Gráfica Digital (SIGraDi) 2021, Panelist (Invited), Georgia Tech (in person, simulcast to Brazil and Chile), November 10, 2021.

"Spatial Futures Lab | Global United Spatial Systems", European Cultural Centre Venice 2021 Architecture Biennial: Time Space Existence, Venice, Italy, May 20 – November 21, 2021. Framed high-resolution prints plus video reel of ongoing Spatial Futures Lab research (Invited).

Professional Memberships:

ACSA



Name: Sabir Khan

Courses Taught (Four semesters prior to current visit):

ARCH 3135 City Literacy
ARCH 4016 Senior Studio
ARCH 4128 Barcelona Architecture and Design
ARCH 4903 Racial Capitalism
ID 4833 Collaborative Design Workshop for ID Minors
ID 4843 Research Seminar

Spring 2020
Fall 2021
Fall 2021
Fall 2020
Fall 2020

Educational Credentials:

Rice University (1987) Master of Architecture
Princeton University (1983) Bachelor of Arts in Architectural History and Theory

Teaching Experience:

Georgia Institute of Technology, School of Architecture (2017 – present) Director, International Education; School of Industrial Design (2011 – present) Associate Professor; School of Architecture (2001 – present) Associate Professor; (1995 – 2001) Assistant Professor; (1993 – 1995) Visiting Instructor University of Oklahoma, College of Architecture (1990 – 1992) Assistant Professor

Professional Experience:

Cottle Khan Architects. Atlanta Leers Weinzapfel Associates, Architects Inc. Boston (1989 – 1990) Woo & Williams, Architects. Cambridge, Massachusetts (1987 – 1989) Bergmeyer Associates. Boston. (1987)

Licenses/Registration:

Registered Architect in Massachusetts

Selected Publications and Recent Research:

Invited Essay, A Three-Legged Dance, for the GT School of Architecture Book on Interdisciplinary Studios. February 2021

Aga Khan Award for Architecture (2016-2019). Exhibition in the Georgia Tech Cohen Gallery. 26 February to 4 April 2020.

Impermanence. Paper presented at Maintainers III: Practice, Policy, and Care. Washington, DC, October 2019.

Archive and Discourse: What Architectural Awards Tell Us. Peer-reviewed Session Proposal selected for SAH Society of Architectural Historians Annual Meeting. Session Organizer and Chair. Five papers presented in one session. April 2018.

Professional Memberships:

AIA, AIAS, NAAB, ACSA



Name: Julie Ju-Youn Kim, RA, AIA NCARB

Courses Taught (Four semesters prior to current visit):

ARCH 8833 Flourishing Communities Workshop
ARCH 6049 Design + Research Graduate studio
ARCH 2017 Architecture Studio III (coordinator)
ARCH 6039 Advanced I Graduate studio
ARCH 8833 Flourishing Communities Workshop
Fall 2020
Fall 2020

Educational Credentials

Massachusetts Institute of Technology, School of Architecture + Planning (1994) Master of Architecture

Wellesley College, B.A. (1989) Architectural Studies

Teaching Experience

Georgia Institute of Technology, School of Architecture, *Associate Professor (2015 – present)* Catholic University of America, School of Architecture and Planning, Washington DC (2011 - 2015) *Associate Professor*

University of Maryland, School of Architecture, Planning & Historic Preservation, College Park MD (2008 - 2011) *Visiting Professor*

Lawrence Technological University, College of Architecture, Southfield, MI

Visiting Professor, International Studio, Paris, Summer 2004

University of Detroit Mercy, School of Architecture, Detroit, MI (1996 - 2008)

Associate Professor (awarded tenure 2004),

Professional Experience

c2architecturestudio, Atlanta, GA; Principal/Founder (2001 - present) studiozONE, Detroit, MI; Partner/Founder (1996 - 2005)

Registration and Professional Memberships

Registered Architect (Michigan, Georgia, Maryland)

American Institute of Architects; National Council of Architectural Registration Board (NCARB) record holder

Publications and Recent Research (selected)

Kim, J. J-Y (forthcoming). *Interdisciplinary Design Thinking in Architecture Education*. London: Routledge, exp. 2023.

Moderator, Pedagogy – Reengaging the Community Session, ACSA110 Annual Meeting (online, 2022) "Community-Engaged Documentation and Design in the English Avenue Neighborhood" New Ways of Seeing the City - 9th Annual Atlanta Studies Symposium, Atlanta, GA (2022) Kim J. J-Y, ed. *Dialogues in Design Thinking: reconsidering the interdisciplinary studio experiment in the School of Architecture at Georgia Tech.* Atlanta, GA: School of Architecture, 2021. "Flourishing Communities: Connecting the Academy, Practice, and Communities," AIA Architects Roundtable Atlanta, GA (2021).

"Ten Women Teaching in Detroit," University of Detroit Mercy, School of Architecture, Detroit, MI (2021)

Folan, J and Kim, J.J-Y, eds. *Intersections: Design and Resilience*, Published proceedings from the 2018 AIA/ACSA Intersections Symposium New York, NY; Association of Collegiate Schools of Architecture, Washington, D.C.

Folan, J and Kim, J.J-Y, eds. *Intersections Between the Academy and Practice: Collaborations in Technology, Research, and Practice*, Published proceedings from the 2017 AIA/ACSA Intersections Symposium Orlando, FL; Association of Collegiate Schools of Architecture, Washington, D.C.

Professional Memberships: AIA, EQiA



Name: Jude LeBlanc

Courses Taught (Four semesters prior to current visit):

ARCH 3016 Third Year Arch Design Studio Fall 2021, 2020
ARCH 4833/8833 Portfolio Design Workshop Fall 2021, 2020
ARCH 6040 Advanced Studio/Portman Spring 2021
ARCH 6129 Form and Narrative-Cross Media Analysis Spring 2021, 2020

ARCH 8856 Design Studio-Portman Competition Spring 2020

ARCH 8801 MAMC Spring 2020

Educational Credentials:

Harvard University, Graduate School of Design (1982) Master of Architecture University of Houston, College of Architecture (1980) Bachelor of Architecture

Teaching Experience:

Georgia Institute of Technology, School of Architecture (1998 – present) Associate Professor

Harvard University, GSD (1996 – 1998) Associate Professor; (1992 – 1996) Assistant Professor

University of Virginia, School of Architecture (1986 – 1992) Assistant Professor

Professional Experience:

Andrews and LeBlanc Architects

W. Jude LeBlanc in association with Michael Gamble

W. Jude LeBlanc in association with Doug Allen

Dunham-Jones and LeBlanc Architects, Charlottesville, VA (1989 – 1992)

Robert A. M. Stern Associates, Architects (1984 – 1986)

Gwathmey/Siegel and Associates, Architects (1983-1984)

Skidmore, Owings and Merrill, New York, NY (1982-1983)

Licenses/Registration:

Registered Architect (New York, New Jersey, Wisconsin, Rhode Island)

Selected Publications and Recent Research:

"Garden of the Collared Dove", Submission to International Design Competition, "Columbarium – The Chamber of Memories Competition", BEE BREEDERS, Architecture Competition Organizer, Fall 2021.

"An Architect's Appreciation of The Piano, Jane Campion's New Zealand Yarn", 42nd ANNUAL Southwest Popular Culture/American Culture Association Annual Conference, Albuquerque, NM, presented Feb 2021.

Gauja National Park Footbridge, Gauja National Park in Vidzeme Latvia, International Design Competition, July 2019, short-listed and published on website.

Professional Memberships:

Institute of Classical Architecture and Art (ICAA)



Name: Scott Marble

Courses Taught (Four semesters prior to current visit):

ARCH 7103 Integrated Building Systems III

ARCH 7102 Integrated Building Systems II

Fall 2020

Spring 2020, 2021, 2022

Educational Credentials:

Columbia University (1986), Master of Architecture

Texas A&M University (1983) Bachelor of Environmental Design

Teaching Experience:

Georgia Institute of Technology, School of Architecture (July 2015-2022) Chair & Professor

Columbia University GSAPP (1987-2015) Adjunct Professor

University of Michigan Taubman College of Architecture (2004) Max Fisher Visiting Critic

Syracuse University School of Architecture (2002) Visiting Critic

Rensselaer Polytechnic Institute School of Architecture (2000) Visiting Critic

Professional Experience:

Marble Fairbanks Architects (1992-current) Founding Partner

Licenses/Registration:

Registered Architect in New Jersey (May 2015 - present), Wisconsin (June 2011 - present)

Selected Publications and Recent Research:

2021 Awards, Publications & Media Coverage

- AIA Tri-State Silver Medal | Silver Medal, Regional and Urban Design | Greenpoint Library and Environmental Education Center
- AIA New York State Design Awards | Institutional Merit Award | Greenpoint Library and Environmental Education Center
- NYCxDesign Awards (Interior Design) | Greater Good: Social + Environmental Impact Category | Greenpoint Library and Environmental Education Center
- Architizer A+ Award | Finalist | Greenpoint Library and Environmental Education Center
- Fast Company Innovation by Design Award | Spaces and Places category Finalist |
 Greenpoint Library and Environmental Education Center

2020 Awards Publications & Media Coverage

- Greenpoint Library and Environmental Education Center
 - Featured in New York Magazine
 - Featured in NYC Public Design Commission Annual Awards
 - Featured in the New York Times, twice

2019 Awards Publications & Media Coverage

- "Everything than can be Measured will be Measured", in TAD (Technology | Architecture + Design) Volume 2: Issue 2
- Panel Moderator, AIANY Technology Lecture Series, Center for Architecture, New York, NY
- Presentation and Panelist, Autodesk's AEC Futures Symposium, Boston, MA; Invitation only leadership symposium; "Technology Research at Georgia Tech School of Architecture"

Professional Memberships:

FAIA NCARB

Name: Vernelle Noel



Courses Taught (Four semesters prior to current visit):

ARCH 4017 Senior Design Studio Spring 2020

ARCH 4433/8833 Computation and Repair in Design Spring 2020

ARCH 4433/8833 Artificial Intelligence & Design Fall 2021

Educational Credentials:

Pennsylvania State University, Dept. of Architecture (2019) PhD in Arch: Design Computing

Massachusetts Institute of Technology, School of Arch and Planning (2013) SMArchS Howard University, Washington, DC (2007) B. Arch

John S. Donaldson Technical Institute, Port of Spain, Trinidad (1999) Diploma in Civil Eng.

Teaching Experience:

Georgia Institute of Technology, School of Architecture (2021 – present) Assistant Professor; (2018 – 2020) Visiting Assistant Professor, Ventulett NEXT Fellow University of Stuttgart, Integrative Computational Design and Construction for Architecture (2021) Visiting Assistant Professor

University of Florida, School of Architecture (2020 – 2021) Assistant Professor Penn State University, Department of Architecture (2016 – 2018) Instructor Singapore University of Technology & Design (SUTD) School of Architecture and Sustainable Design (2013 – 2014) Visiting Fellow

Professional Experience:

VAAN Design Lab (2015 – 2017) Head Designer & Director IAAA (2010 – 2011) Independent Architect + Design Consultant, Trinidad Burt Hill, Stantec (2008 – 2009) BIM Manager and Project Architect, Ahmedabad, India

Licenses/Registration:

Selected Publications and Recent Research:

Vernelle A. A. Noel, Niloofar Nikookar, Jamieson Pye, Phuong Tran, and Sara Laudeman. "The Infinite Line Active Bending Pavilion: Culture, Craft and Computation." In PROJECTIONS, Proceedings of the 26th International Conference of the Association for Computer-Aided Architectural Design Research in Asia (CAADRIA) 2021, Volume 1, 351-360. Hong Kong. (March).

Noel, Vernelle AA, Yana Boeva, and Hayri Dortdivanlioglu. 2021. "The Question of Access: Toward an Equitable Future of Computational Design." International Journal of Architectural Computing 19 (4) (November): 496–511.

Vernelle A. A. Noel. "Computational Regionalism: De-familiarization of tectonics in the wire-bending craft" in International Journal of Architectural Computing (IJAC). Accepted March 2021.

Professional Memberships:

AAA, DRS, GWIS, CSA, LASA, AERA, 4S, ACM, IASS, ACADIA, AIA



Name: Frederick Pearsall

Courses Taught (Four semesters prior to current visit):

ARCH 1017 First Year Architecture Studio ARCH 2854 Second Year Architecture Studio

ARCH 4016 Architecture Studio 6

ARCH 4227/6227 Architecture & Ecology

ARCH 6039 Advanced Studio I

Spring 2021 Spring 2020 Fall 2020

Spring 2021, 2020

Fall 2021

Educational Credentials:

University of Pennsylvania, School of Fine Arts (1976) Master of Architecture University of North Carolina, Dept. of Art History (1973) A.B. Art History Minor in Anthropology

Cornell University, College of Arts and Sciences (1971) Liberal Arts Program Cornell University, College of Architecture, Art and Planning (1970) Architecture Program

Teaching Experience:

Georgia Institute of Technology, School of Architecture (1985 – present) Senior Lecturer, Lecturer, Visiting Instructor; Oxford Study Abroad Program (2004 – 2011) Visiting Lecturer

Emory University, Department of Art History (2006 – 2008) Visiting Lecturer

Professional Experience:

Romm + Pearsall / Architects and Planners, Atlanta (1983 – present): Partner Frederick Pearsall / Consultant, New York, NY (1978 – 1982): Project Designer Hayes & Howell Architects, Southern Pines, NC (1977): Project Designer Venturi, Rauch and Scott Brown, Philadelphia, PA (1974 – 1976): Design and Planning Intern

Licenses/Registration:

N/A

Selected Publications and Recent Research:

Development of a new way of mapping mutually-causal natural and cultural systems across spacetime scales for two research projects: the first for a cold desert context of Fly Ranch, Nevada, and the second, for the temperate rain forest context of Fragas do Eume, Galicia, Spain. Summer/Fall 2020, I worked with two former students for six months of extensive social- ecological context systems research, and a related design proposal for the Land Art Generator Initiative's Competition for Fly Ranch, Nevada. In my fall studio working on new center at Georgia Tech for social equity and environmental justice, we collaborated extensively with International Living Future Institute, local experts on the Living Building Challenge, and Jenny Hirsch of Serve-Learn-Sustain.

Professional Memberships:

N/A



Name: John Peponis

Courses Taught (Four semesters prior to current visit):

ARCH 3010 Design Strategies

ARCH 4017/ID 3842 Cross Disciplinary Studio

ARCH 6049 Design + Space Syntax

ARCH 8630/4803 Architecture, Space and Culture

Fall 2021, 2020 Spring 2021 Fall 2021, 2020 Spring 2021, 2020

Educational Credentials:

University of London, University College (1983) PhD Architecture University of London, University College (1977) M.Sc Architecture University of London, University College (1976) B.Sc Architecture

Teaching Experience:

Georgia Institute of Technology, School of Architecture (2004 – present) Professor; (2013 – 2014) Associate Chair; (2011 – 2013) Associate Chair for Advanced Studies and Research; (2008 – 2011) Coordinator of Post-professional and Doctoral Programs; (1989 – 2004) Associate Professor; (1991 – 1992) Acting Director, PhD Program; (1989) Visiting Professor

National Technical University of Athens, Greece (1994 – 2005) Part-time Associate Professor; (1992 – 1994) Associate Professor

University College London (1987 – 1988) Lecturer; (1980 – 1983) Research Assistant Aristotle University, Thessaloniki, Greece (1986 – 1988) Part time Researcher

Professional Experience: N/A

Licenses/Registration: Register Architect in Greece (1982-present)

Selected Publications and Recent Research:

- 2021, 11 December: Invited keynote at the Computational Symposium and the Annual Conference of the Computational Design Academic Committee of the Architectural Society of China: "Intelligence, intent and data in design"
- 2021, 29 November: "Urban interfaces and their pedagogical effects". Lecture to the students of the urban design course run by Daniel Koch at KTH, Stockholm.
- Cho K, Lee G, Massa K, Park E, Peponis J, Sethi V, Siap H, Watson A, 2021
 Architecture, perception, curation (School of Architecture, Georgia Tech, Atlanta)
- Feng C, Peponis J, 2021, "Pathways to creating differentiated grids: types, benefits and costs" Environment and Planning B: Urban analytics and city science online first 1-14
- Peponis J, 2021, "Introduction. Who speaks about the city? ", in M Efstathiadi Privatopia (Kappa, Athens) pp 4-7
- Feng C, Peponis J, 2020, "The definition of syntactic types: the generation, analysis and sorting of universes of superblock designs" Environment and Planning B: Urban analytics and city science 47 1031-1016

Professional Memberships: Technical Chamber of Greece



Name: Tarek Rakha

Courses Taught (Four semesters prior to current visit):

ARCH 4231/6532 Environmental Systems II

ARCH 6072 D+R Studio

ARCH 6242 Building Physics Modeling

ARCH 6226 Inquiry in Building Performance

ARCH 8833 Integrated Building Systems I

Spring 2020

Spring 2020

Fall 2020

Fall 2020

Educational Credentials:

Massachusetts Institute of Technology, School of Arch + Planning (2015) PhD in Building Technology

Cairo University, Faculty of Engineering (2010) Master of Science in Architecture Cairo University, Faculty of Engineering (2007) Bachelor of Architecture

Teaching Experience:

Georgia Institute of Technology, School of Architecture (2021 – present) Director, High Performance Building Lab; (2019 – present) Assistant Professor Syracuse University, School of Architecture (2015 – 2018) Assistant Professor Rhode Island School of Design, Division of Architecture + Design, Dept. of Architecture (2015) Adjunct Professor

Massachusetts Institute of Technology, Building Technology Program, Dept. of Architecture (2014) Instructor

Selected Publications and Recent Research:

- Bayomi, N., Elkholy, M., Rakha, T. and Fernandez, J. (2021) "Passive survivability under extreme heat events: the case of AlDarb Al Ahmar," Cairo. Science and Technology for the Built Environment. 27(8). 1144-1163.
- Rakha, T., El Masri, Y., Chen, K., Panagoulia, E., & De Wilde, P. (2021). Building envelope anomaly characterization and simulation using drone time-lapse thermography. Energy and Buildings, 111754.
- Rakha, T.,* El Masri, Y., Chen, K. and De Wilde, P. (2021) "3D drone-based time-lapse thermography: a case study of roof vulnerability characterization using photogrammetry and performance simulation implications." In Proceedings of Building Simulation 2021, 01-03 September, Bruges: Belgium.
- Rakha, T., Velipasalar, S., Fernandez, F. and Bayomi, N. "Building Envelope Remote Sensing Drones (BERDs)." Invention Disclosure and Provisional Patent led by Georgia Tech with MIT and Syracuse University
- A Digital Transformation of Architectural Envelope Defect Detection Digital Building Lifecycle Roundtable, Microsoft Global Workspace Services (GWS)

Professional Memberships:

SimAUD, STASIO, TAG



Name: Ryan Roark

Courses Taught (Four semesters prior to current visit):

ARCH 1060 Introduction to Design
ARCH 1854 First Year Architecture Studio
ARCH 2017 Second Year Architecture Studio
ARCH 4017 Senior Architecture Studio
ARCH 4803/8803 Representing Renovation and Reuse

Fall 2021, 2020
Fall 2020
Spring 2020
Spring 2021
Spring 2021, 2020

ARCH 6039 Advanced 1 Graduate Studio Fall 2021

Educational Credentials:

Princeton University School of Architecture (2017) M. Arch History and Theory Cambridge University (2011) PhD Oncology Brown University (2005) AB/ScB Math, Comparative Literature, Biology

Teaching Experience:

Georgia Institute of Technology, School of Architecture (2019 – 2022) Visiting Assistant Professor, Ventulett NEXT Fellow

Rice University, School of Architecture, Houston (2019) Visiting Studio Critic Kohn Pedersen Fox Paul Katz Fellowship, London (2017) Researcher Princeton University, School of Architecture (2015 – 2017) Assistant Instructor

Professional Experience:

LTL Architects, New York (2018): Architectural Designer
First Office, Los Angeles (2013 – 2014, 2015, 2017 – 2018): Designer and Researcher
Belzberg Architects, Los Angeles (2016) Design Intern
Young + Ayata, New York (2015) Design Intern

Selected Publications and Recent Research:

REPRESENTING RENOVATION: RADICAL ADAPTIVE REUSE IN LONDON Exhibition of experimental representation of London adaptive reuse projects at the Metropolitan Atlanta, expected early 2022

MECHANICSVILLE 2030: THE PAST, PRESENT, AND FUTURE OF ONE OF ATLANTA'S OLDEST NEIGHBORHOODS Proposal for an urban plan and 14 adaptive reuse projects along two blocks of Whitehall Street in Atlanta, partially based on a spring 2021 Capstone studio at Georgia Tech, exhibition at the Atlanta Preservation Center, September- November 2021

'The Afterlife of Dying Buildings: Ruskin and Preservation in the Twenty-First Century' in Ruskin's Ecologies, Courtauld Books Online, 2021.

'How can adaptive reuse promote urban revitalization without erasing and replacing local culture?' A Panel Discussion of Research Questions at SIGraDi 2021 Designing Possibilities Ubiquitous Conference, Moderated by Russell Gentry, November 2021.

Professional Memberships:

ACSA, AIA



Name: Ingeborg M. Rocker

Courses Taught (Four semesters prior to current visit):

Started a GT SoA September 1, 2022

Educational Credentials:

Princeton University (2010), Ph.D

Princeton University (2003), MA in the History and Theory of Architecture

Columbia University (1996) MSAAD with prize

Rheinisch-Wesfälische Technische Hochschule Aachen (1995) Diploma with distinction

Teaching Experience:

Georgia Institute of Technology, School of Architecture (Sept. 2022 - present) Chair

Harvard University (2020) Visiting Lecturer

Harvard University (2011-2014) Associate Professor

Harvard University (2005-2011) Assistant Professor

Princeton University (2002-2005) Lecturer and Instructor

Humboldt-Universität zu Berlin (2001-2) Visiting Scholar

Professional Experience:

Rocker-Lange Architects, Boston and Hong Kong (2005-present) Principal Dassault Systemes (3DS) Boston, Paris (2014-present) Vice President Industry Innovation

Eisenman Architects, New York (1996-1999) Project Architect, Lead Designer

Licenses/Registration:

Registered Architect in New Jersey (May 2015 - present), Wisconsin (June 2011 - present)

Selected Publications and Recent Research:

Numerous exhibitions organized and curated by Rocker-Lange Architects rocker-lange.com/blog/

Reprinted: Ingeborg M. Rocker, 'Versioning: Architecture as Series?', in *First International Conference on Critical Digital: What Matters(s)?* (Cambridge: Harvard University Graduate School of Design, 2008), 157-170, in Mark Burry (ed.), Digital Architecture, ((Routledge, New York, 2020, 157-170.

Rocker, Ingeborg M., "Discipline. Autonomy," in: *Peter Eisenman | In Dialogue With Architects And Philosophers*, edited by Vladan Djokić & Petar Bojanić, [En]Coding Architecture 2013, Mimesis International, Architecture n.2, 2017, 95.

Rocker, Ingeborg M., "Parametric continuity: The loss of complexity and contradiction for the myth of self-similarity," In *Architecture in Formation* edited by Pablo Lorenzo-Eiroa and Aaron Sprecher, (Routledge, New York, 2012/2013).

Rocker, Ingeborg M., "Emerging Structures: Information Aesthetics and Architectures of the Digital Medium." PhD dissertation, Princeton, 2010.

Professional Memberships:

German American Business Council



Name: Stuart Romm

Courses Taught (Four semesters prior to current visit):

ARCH 2012 Architecture Design Studio II

ARCH 6051 Architecture Options Studio I

ARCH 7090 Masters Project Studio

ARCH 6312/4843 Ecological Practices: Cross-Disciplinary Shelter Workshop

ARCH 6315/4315 Professional Practice of Architecture

ARCH 4833/8833: Digital Craft / Design-Build Workshop (Digital Fabrication Lab)

ARCH 4833/8833: Cross-Disciplinary Athletic Center Workshop

Educational Credentials:

Cornell University, School of Architecture, Art and Planning (1974) B. Arch

Teaching Experience:

Georgia Institute of Technology, School of Architecture (2012 – present) Professor of the Practice; (1992 – 2011) Senior Lecturer

Professional Experience:

PRAXIS3 architecture and multidisciplinary design, Atlanta (1997 – present): Founding Principal

Romm + Pearsall Architects, Atlanta (1982 – present): Partner

Stuart Romm / Architect, Atlanta (1979 – 1981): Principal

John Portman & Associates, Atlanta & Los Angeles (1974 – 1978) Intern Architect

Licenses/Registration:

Registered Architect: Georgia (initial license), plus California, Florida, Illinois, Kansas, Kentucky, Massachusetts, Michigan, New Hampshire, New Jersey, New York, Tennessee, Texas, Virginia

Selected Publications and Recent Research:

Discourses on Nations and Identities / The Many Languages of Comparative Literature, edited by Daniel Syrovy, Berlin/Boston: DeGruyter Press GmbH, 2021, chapter "Emplacing the Other, or How Dignity Plays", pp. 471-478, Author: Stuart Romm

SAMLA 91 (South Atlantic Modern Languages Association), Atlanta, GA, "Language, Power, Identity, Relationships", Panel Presentation: "The Word in Public Space", Author: Stuart Romm

Designing Libraries VII (Coalition for Networked Information), Atlanta, GA, "Designing Libraries to Empower Communities", Workshop Leader: "Using Design Thinking to Make the Case"

Professional Memberships:

AIA, NCARB, LEED AP



Name: Charles Rudolph

Courses Taught (Four semesters prior to current visit):

ARCH 1016 Undergraduate First Year Studio (Coordinator)

ARCH 2211/6229 Construction tech + Design Integration I

ARCH 6040 AAD Portman Competition Studio

ARCH 7102 Integrated Building Systems II

Fall 2021

Fall 2021

Spring 2021

Educational Credentials:

Columbia University, New York, NY (1989) Master of Science/Building Design Rice University, Houston, TX (1983) Bachelor of Architecture Rice University, Houston, TX (1981) Bachelor of Arts/Art and Art History

Teaching Experience:

Georgia Institute of Technology, School of Architecture (2016 – present) Director,
PRACTICUM program; (2000 – present) Associate Professor with Tenure; (1995 – 2000) Assistant Professor; (1992 – 1995) Adjunct Instructor

Professional Experience:

Pei, Cobb, Freed & Partners, New York (1989 – 1992)
Peter Wheelwright & Associates, Architects, New York (1986—1988)
Ryall + Bishop Architects, New York (1986)
Michael Underhill A.I.A., Houston (1983 – 1986)
R.M. Kliment and Frances Halsband, Architects, New York (1981 – 1982)
Wittenberg, Deloney & Davidson Architects, Little Rock (1978)

Licenses/Registration:

Registered Architect in New York #6271 (1997)

Selected Publications and Recent Research:

Working study of the emergence and influence of minimal and "post-minimal" art (US, Japan, and Europe) in the 1960's, and parallel developments in architecture, urban design, and landscape. The key period is the 1990's when "the minimal" appeared as one form of the critique of postmodernism, alongside the rise and fall of various theoretical directions (deconstructionism, sexuality + space, radical urbanism), and the digital turn. Working title might be: "Typologies of the Minimal: Object and Place in Architecture and Landscape".

Professional Memberships:

ACE



Name: Lars Spuybroek

Courses Taught (Four semesters prior to current visit):

ARCH 2854 Deep Decoration Architecture Studio Fall 2021, 2020 ARCH 6352/4803/8803 On Growth and Form Spring 2021, 2020

ARCH 6352/4803/8803 Bioconstructivisms Fall 2020

ARCH 8866 99 Stellavista: Robot House Spring 2021, 2020

Educational Credentials:

Technical University Delft (1989) M.Sc. Architecture

Teaching Experience:

Georgia Institute of Technology, School of Architecture (2006 – present) Professor with tenure; (2006 – 2011) Thomas W. Ventulett III Distinguished Chair

University of Kassel, Germany (2002 – 2006) Professor of Digital Design Techniques; (2000 – 2001) Professor of Geometry and CAD

Columbia University, New York (1998, 2001, 2004, 2005, 2006) Visiting Associate Professor

ESARQ University, Barcelona (2005) Visiting Professor

Bartlett School of Architecture, Univ. College London (2002) Banister Fletcher Visiting Professor

Academy of Architecture Arnhem (1993 –1995) Assistant Professor

Academy of Architecture in Amsterdam (1993 - 1995) Assistant Professor

Technical University Eindhoven (1996) Assistant Professor

Academy of Architecture Tilburg (1992 –1995). Assistant Professor

Technical University Delft (1990–1993) Assistant Professor

Professional Experience:

NOX Architects, Rotterdam, Netherlands (1991 – 2010) Founding Principal

Licenses/Registration: N/A

Selected Publications and Recent Research:

The Grace Machine. https://thegracemachine.com

Grace and Gravity: Architectures of the Figure, by Lars Spuybroek (London: Bloomsbury Visual Arts. 2020)

Nuijsink, Cathelijne. ""Disprogramming," "Plan-less," "Non-movement," "No Style":
Dialectic Strategies in the Shinkenchiku Residential Design Competition (1965–2019). "Critic all, IV International Conference on Architectural Design & Criticism, Sao Paulo 25–26 March 2021. critic all PRESS+ Departamento de Proyectos Arquitectónicos (ETSAM–UPM).

Mark Usher. "Design and revolution: Morris, modernism and urban gothic," Urban Geography, pp. 1-29.

Sean Burns, and Genevieve Baudoin, "The Savage Detail: Narrative and the Transfer of Authorship in Design and Fabrication."

Professional Memberships: N/A



Name: Danielle S. Wilkens, Assoc. AIA, FRSA, LEED AP BD+C

Courses Taught (Four semesters prior to current visit):

ARCH 1017 Studio I (coordinator)

ARCH 2111/6105 History of Architecture I

Summer 2022, 2021

Summer 2022, Fall 2020

ARCH 3009/6009 + 4903/8903 Architectonics in Greece and Italy2022 summer study abroad

ARCH 3115 Modern Art & Architecture Workshop Fall 2020

ARCH 4823/6160 Race, Space, and Architecture in the US

ARCH 4016: Studio VI

ARCH 4017: Studio VII

Summer 2021

Summer 2021

Educational Credentials:

The Bartlett School of Arch., University College London (2015), PhD, Arch. History & Theory Savannah College of Art & Design (2011), Graduate Certificate in Historic Preservation University of Virginia (2008), M. Arch

University of Cambridge, St. John's College (2006), M. Phil, History of Art and Architecture University of Virginia (2004), BS Architectural Design and Architectural History, with Honors

Teaching Experience:

Georgia Institute of Technology, School of Architecture (Aug.2019 –), Assistant Professor Auburn University, School of Architecture Planning and Landscape Architecture Assistant Professor (August 2016 - August 2019); Visiting AP (August 2014 - August 2016) Regent's University London (January 2013 – May 2014) Instructor and Moderator Queen Mary, University of London (Sept. 2012 – Sept. 2013) Postgrad Teaching Assistant University of Virginia, School of Architecture (January - December 2010) Adjunct Faculty

Professional Experience:

The Learning Barge, Hampton Roads, VA (September 2007 - January 2010)
Project manager for the design/build classroom and environmental field station
Thomas Jefferson Memorial Foundation (September 2007 – January 2010, summer 2004)
Associate Interpreter and researcher at the UNESCO site

Licenses/Registration:

36 CFR Part 61 for Architectural History, Architecture, and Historic Architecture (2015 – present) National Council of Architectural Registration Boards (NCARB) record holder (2005 - present) LEED AP Building Design + Construction (BD+C) (2015 - present) FAA Certified Remote Pilot, part 107 (2017 - present)

Selected Publications and Recent Research:

(forthcoming) Willkens, Danielle. *The Transatlantic Design Network: Jefferson, Soane, and agents of architectural exchange, 1768-1838.* Charlottesville, VA: University of Virginia Press, expected 2023.

"Walking in the Footsteps of History," 3rd Annual ACCelerate Creativity + Innovation Festival at the Smithsonian's National Museum of American History (April 8-10, 2022).

Willkens, Danielle. *Architecture for Teens: A Beginner's Book for Aspiring Architects*. New York, NY: Rockridge Press, 2021.

(forthcoming) Willkens, Danielle. "The Craft and Care of Reality Capture" *Buildings and Landscapes* 29.2: Special Issue on Field Work (fall 2022) 26 pages.

Willkens, Danielle, Heather Haley, and Junshan Liu. "Race, Space, and the Digital Interpretation at Selma's Old Depot Museum." *ARRIS* 31 (2021): 108-118.

Willkens, Danielle. "Clouds and Cataracts: atmospheric experiments at Sir John Soane's Museum." *TAD: Open* 3:2 (2019): 211-220.

Professional Memberships:

AIA, AIAS, EAHN, ICAA, SAH, SAHGB, SESAH, US/ICOMOS



Name: Craig Zimring

Courses Taught (Four semesters prior to current visit):

Educational Credentials:

University of Massachusetts, Amherst (1978) PhD in Environmental Psychology University of Massachusetts, Amherst (1976) Master of Science in Psychology University of Michigan (1973) Bachelor of Science in Psychology

Teaching Experience:

Georgia Institute of Technology, School of Architecture (2012 – present) Director, SimTigrate Design Lab; (2000 – present) Professor of Architecture and Psychology; (1983 – 2000) Associate Professor; (1978 – 1983) Assistant Professor

University of Massachusetts Amherst (1974 – 1978) ELEMR Project Co-Investigator

Professional Experience:

Licenses/Registration:

Selected Publications and Recent Research:

- DuBose, J., Davis, R. G., Campiglia, G., Wilkerson, A., & Zimring, C. (2021, Nov 30). Lighting the Patient Room of the Future: Evaluating Different Lighting Conditions from the Patient Perspective. HERD, 19375867211063481.
- Tonetto, L. M., da Rosa, V. M., Brust-Renck, P., Denham, M., da Rosa, P. M., Zimring, C., ... & Lehmann, L. (2021). Playful strategies to foster the well-being of pediatric cancer patients in the Brazilian Unified Health System: a design thinking approach. BMC Health Services Research, 21(1), 1-11.
- Lim, L., Zimring, C. M., DuBose, J. R., Lee, J., Stroebel, R. J., & Matthews, M. R. (2021). Designing for Effective and Safe Multidisciplinary Primary Care Teamwork: Using the Time of COVID-19 as a Case Study. International Journal of Environmental Research and Public Health, 18(16), 8758.
- Stroebel, Robert J.; Obeidat, Bushra; Lim, Lisa; Mitchell, Jay D.; Jasperson, David B.; Zimring, Craig, "The impact of clinic design on teamwork development in primary care." *Health Care Management Review* 46:3 (2021): 257-264
- Graves, E., Davis, R. G., DuBose, J., Campiglia, G. C., Wilkerson, A., & Zimring, C. "Lighting the Patient Room of the Future: Evaluating Different Lighting Conditions for Performing Typical Nursing Tasks." *HERD: Health Environments Research & Design Journal* 14:2 (2021): 234-253.
- Lim L, Kanfer R, Stroebel RJ, Zimring CM. "Beyond Co-location: Visual Connections of Staff Workstations and Staff Communication in Primary Care Clinics." *Environment and Behavior (*August 2020).
- Lim, L., Kanfer, R., Stroebel, R. J., & Zimring, C. M. "The Representational Function of Clinic Design: Staff and Patient Perceptions of Teamwork." *HERD: Health Environments Research & Design Journal* 14:2 (2020): 254-270.

Professional Memberships: