# Syracuse University School of Architecture

# Graduate Prospectus

## DEAN'S STATEMENT

Syracuse Architecture consistently ranks among the best professional schools of architecture in the country. This year the M.Arch program was ranked 8th best by *DesignIntelligence*, the highest ranking in school history. Over the last several years we have designed a futureoriented M.Arch curriculum that seeks to redefine the shape of contemporary architecture practice. This has meant updating our studio and fabrication facilities, but it has also meant developing new university, industry and governmental partnerships. This past year we also launched DESIGN | ENERGY | FUTURES, a concentrated research + design program that leads to a master of science in architecture.

Slowly, over the last half century, and more rapidly during the last decade, urbanization, climate change, and technological disruption have combined to shape an ever more volatile and unpredictable world. Yet it is a world more interconnected and interdependent than at any time in human history. Architects have begun to find new opportunities to actively intervene in and transform this new reality and, as a result, have put themselves at the center of some of the most defining issues of our time. The Syracuse Architecture graduate program seeks to match the pace of this new world while simultaneously seeking opportunities for architects to make it better through the design of better products, buildings, infrastructures and cities. We invite you to visit and to join us.

Michael Speaks, Ph.D. Dean, School of Architecture

## CHAIR'S STATEMENT

As the discipline of architecture continuously and fluidly evolves, we find ourselves — as we have for centuries in need of asking "what *is* architecture, anyway?" At Syracuse, we ask that question in the rich context of a research university working alongside top-rated professional and research programs in many other disciplines to support an introspective yet profoundly forward-looking attitude towards the future of practices, architectural and otherwise. Rather than ask "what *is* architecture," we like to ask "what will architecture *be*?" And, as educators of the next generations, we add "what will the *architect* be?"

From our many research collaborations with one of New York State's Centers of Excellence, based in downtown Syracuse, to our explicitly transdisciplinary Directed Research graduate capstone experience, we embrace the position that models of research that have conven-tionally been outside the purview of architecture must become part of a student's (and future professional's) tool kit. From the recently unveiled Einhorn 21st Century Studio, an award-winning graduate-dedicated learning environment, to our workshops and symposia that bring students in direct working contact with global leaders of practice, we embrace the drive to have our graduates take the field in new directions, transforming what architectural practice—and the architectural practitioner—can be.

We hope that you will join us in this pursuit. There may not be immediate answers to any of our disciplinary questions, but we welcome the opportunity to explore together where these questions may take us.

Brian Lonsway Chair, School of Architecture Graduate Program

# Master of Architecture (M.Arch)

The master of architecture is accredited by the National Architectural Accrediting Board as a first professional degree, a requirement of licensure for becoming a practicing architect in the United States, and a terminal degree for many design educators around the globe. Our curriculum is designed for students with baccalaureate degrees in any field to acquire a first professional degree, but also supports advanced standing for students with baccalaureate degrees in architecture and related fields. Focused on preparing forward-looking students, our curriculum highlights innovative practices, new techniques and technologies, and transdisciplinary approaches to architectural research, inquiry, and design.

Studios in design and media, lecture courses and seminars in theory and history, and courses in structures and technology during the first three semesters of the M.Arch curriculum constitute the "core" of the program. The final four semesters, including a summer intensive term, each offer distinct experiences. In the fourth semester, all students have the option to select from a range of studios taught by distinguished visiting critics. In the summer of the second year, students may choose to study at a summer intensive program in New York City or in one of our "Three Cities" global study programs. Students also have the option of studying abroad at the university's centers in Florence and London in the spring of their second or third years by extending their study into an additional fall term. The design focus of the final year is structured around our Integrative Studio, designed to synthesize knowledge garnered across the curriculum in a highly detailed building design, and a faculty directed research project defined and developed by the student in tandem with faculty advisors. A rich array of professional and history electives allows students to study specific topics in seminars and lecture courses.

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	Total Credits 110 c.h.	Design & Media (42 c.h. / 6 c.h.)	History, Theory & Research (12 c.h. / 6 c.h. / 5 c.h.)	Technology & Structures (15 c.h. / 6 c.h.)	Professional & Open Electives (12 c.h. / 6 c.h.)
1	Fall 16 c.h.	• ARC 604 Architectural Design (6 c.h.)	• ARC 641 Intro to Architectural Discourse (3 c.h.)	• ARC 621 Building Systems Design I (3 c.h.)	
		• ARC 681 Media I (3 c.h.)	• ARC 650, sec 1 Architectural Research (1 c.h.)		
	Spring 16 c.h.	• ARC 605 Architectural Design (6 c.h.)	• ARC 631 Studies in Arch Histories (3 c.h.)	• ARC 611 Structures I (3 c.h.)	
		• ARC 682 Media II (3 c.h.)	• ARC 650, sec 2 Architectural Research (1 c.h.)		
	Summer 3 c.h.				• Professional Elective (3 c.h.)
2	Fall 16 c.h.	• ARC 606 Architectural Design (6 c.h.)	• ARC 639 Architectural History Principles (3 c.h.)	ARC 612     Structures II (3 c.h.)	
			• ARC 650 Architectural Research (1 c.h.)	• ARC 622 Building Systems II (3 c.h.)	
	Spring 16 c.h.	• ARC 608 Architectural Design, VC (6 c.h.)	• ARC 642 Theory & Design Research (3 c.h.)	• ARC 623 Advanced Building Systems (3 c.h.)	
			• ARC 650, sec 4 Architectural Research (1 c.h.)	•Technology Elective (3 c.h.)	
	Summer 12 c.h.	• ARC 609 Architectural			• Professional Elective (3 c.h.)
		Design, VC (UCIII.)			• Professional Elective (3 c.h.)
3	Fall 16 c.h.	• ARC 607 Architectural Design, Intar (6 c.h.)	• History Elective (3 c.h.)		• Open Elective (3 c.h.)
		<u>-</u>	• ARC 650, sec 5 Architectural Research (1 c.h.)		• Professional Elective (3 c.h.)
	Spring 15 c.h.	• ARC 698 Directed Research (6 c.h.)	• History Elective (3 c.h.)	• ARC 585 Professional Practice (3 c.h.)	• Open Elective (3 c.h.)

# Master of Science (M.S.)

DESIGN | ENERGY | FUTURES is a concentrated research + design program\* that leads to a post-professional master of science (MS) in architecture. The program focuses on energy and the built environment with research + design projects ranging across many scales, from urban design to high performance buildings, from VR and computational simulation to building material research and product design, and across a range of disciplinary and practice areas—including adaptive re-use, real estate development and urban design.

Students are directed for the duration of the program by faculty actively engaged in externally sponsored research and design projects, and have numerous opportunities for research internships in the faculty's various research facilities.

Coursework consists of two required studios, one of which is paired with a prototype thinking research seminar and a series of electives meant to complement the design + research studio projects.

Applicants holding a professional degree in architecture, landscape architecture, urban design or urban planning are encouraged to apply, though applicants in related disciplines such as management, engineering, geography, environmental, graphic or product design may also be admitted at the discretion of the admissions committee in consultation with program administrators.

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	Total Credits 30 c.h.	Design + Research (18 c.h.)		Professional Electives (6 c.h.)	Open Electives (6 c.h.)
	Fall 9 c.h.	●ARC 707 Architectural Design + Research Seminar (6 c.h.)	• ARC 770 Architectural Research (3 c.h.)		
	Spring 12 c.h.			<ul> <li>Professional Elective (3 c.h.)</li> </ul>	■ Open Elective (3 c.h.)
				<ul> <li>Professional</li> <li>Elective (3 c.h.)</li> </ul>	<ul> <li>Open Elective (3 c.h.)</li> </ul>
	Fall 9 c.h.	• ARC 708 Architectural Design + Research Seminar (6 c.h.)	• ARC 770 Architectural Research (3 c.h.)		

\*Please note that this program does not meet the licensure requirements to become an architect in the United States and it is not considered licensure qualifying in the United States.

# 👯 Curricular Areas

#### Discursive Studio

All core design courses in the graduate program operate as what we call "discursive studios." Each of the first four semesters of design is team-taught by two faculty members with complementary expertise and approaches, who conduct the studio as a site of debate, exchange, and possibility.

#### + Architectural Research

A series of one-credit courses taken each semester during the academic year introduce students to a range of research methods essential for architectural professionals from various disciplinary, scholarly, and professional perspectives. Courses introduce both historically grounded and projective methods relevant to both the academic researcher and the licensed practitioner, and, depending on the needs and opportunities available for the course, may take on the form of workshops with visiting lecturers, field research, or collaboration on externally-funded research projects of our faculty.

#### History and Theory

Equal parts analysis, speculation, research, and critique, these seminars develop students' intellectual knowledge and skills. Through discussion and presentation, students begin to engage the discourses—texts, buildings, projects, and media—that are fundamental to an understanding of architecture's rich disciplinary traditions. As a counterpart to the ongoing discourse in the design studio, these seminars provide opportunities for extended treatment of esoteric, timely, ethical, and traditional topics, with the aim to identify and initiate the preoccupations, debates, and research interests that students will continue to pursue throughout their studies.

#### 🔶 Media

This two-course sequence introduces architectural communication techniques through the lens of architectural media—both as forms of material, and as channels of communication. For the beginning design student, these courses introduce conventional and experimental techniques of communication that cross digital and analog processes, leading to an understanding of the use of these techniques as critical techniques for framing and constituting architecture itself. From these introductions, the courses move into advanced methods of design communication, including hybrid physical/digital modeling and responsive systems, animation, and augmented and virtual reality.

#### Building Technologies and Structures

Construction practices are constantly evolving, and new design techniques continue to evolve to keep pace. Through this sequence of courses, both required and elective, students are rigorously introduced to the fundamentals of building construction, codes, and maintenance. At the same time, students are exposed to new design tools and techniques that are becoming standard tools for practice: daylighting and energy analysis tools, methods and applications for optimizing complex structural designs, and other building information modeling simulation techniques.

#### • Visiting Critic Studios

A hallmark of Syracuse Architecture's professional curricula, these studios taught by distinguished visiting practitioners expose students to a wide variety of subjects and approaches that represent the vanguard of contemporary practice. Recent critics include Roger Sherman, Georgina Huljich, Yichen Lu, Julián Manriquez Botello, Malkit Shoshan, Guillermo Banchini, Jiminez Lai, and Dwayne Oyler+JennyWu.

#### NYC Intensive/ Global Study

In the second summer of the M.Arch degree, students can study at the school's Fisher Center, in the heart of New York City, in an intensive program that focuses on architecture and the contemporary city. The program embraces a collaborative approach to architecture, real estate development, and urban design, and introduces students to the wide network of practices in the city across these areas. A field study course that uses the City as its classroom, and sponsored access to NewYork City libraries, museums, and other cultural institutions complements students' experiential learning.

#### Directed Research

Students' capstone experience in the M.Arch. degree embraces the complex multi-disciplinary nature of architectural projects in the 21st century by providing a framework for students to explore individual research + design interests around a series of topics supported by faculty expertise from across the university. Led by School of Architecture faculty, small groups of students working in these shared topic areas are given the opportunity to advance their work in the kinds of multi-disciplinary contexts and conversations that drive innovative practice today. Through the Directed Research experience, we prepare students to seek, initiate, and lead these conversations upon graduation.

# 🙀 Quick Facts

• Syracuse University

#### Founded 1870

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Location

Main campus is in Syracuse, NY (a five-hour drive from NewYork City), with eight centers around the world and U.S. centers in New York City, Los Angeles, and Washington, D.C.

Graduate Enrollment 6,000+ students representing 130+ countries

Graduate Programs 200+ graduate degree programs

University Student-to-Faculty Ratio

Average Class Size at the University 25

#### Current Alumni

Over a quarter million alumni representing 173 countries and territories

#### Research

\$67.1 million was awarded for research, teaching, and other sponsored programs in 2014.

#### Studv Abroad

Program consistently ranked among the top 25 in the U.S. Almost half of Syracuse University students study abroad at least once.

#### School of Architecture

#### Founder 1873

#### Location

Based in Syracuse, NY, the School teaches courses around the year in New York City, Florence, and London.

#### Ranking

Syracuse Architecture's master of architecture program is ranked 8th by *DesignIntelligence* in the top schools of architecture for 2017.

Graduate Enrollment Approximately 120 students representing over 15 countries.

Graduate Programs Master of Architecture professional degree and Master of Science in Architecture design + research degree

chool Student-to-Faculty Ratio 3:1

Average Class Size in the Grad Program

#### Research

Over \$500,000 was awarded for research and other sponsored programs since 2013.

#### Career Placement

Over 90% of our graduates are employed within six months of graduation, with salaries 20% higher than the national average. Our alumni are employed in over 42 countries, and at 31 of the 50 Top Firms ranked by ARCHITECT magazine for design, sustainability design, and business/growth.

# 🙀 Resources & Faculty Research Labs

#### Architectural Reading Room

The School of Architecture of the Syracuse University Library system, the Architecture Reading Room (ARR) in Slocum Hall. The ARR provides quick access to student coursework. The ARR houses many important and heavily used books and periodicals relevant to architecture, as well as a collection of working drawings ARR is staffed with an architecture librarian and support staff who can assist in access to any university library materials, including unique special collections like the Marcel Breuer Digital Archive or Richard Neutra Papers.

#### • Fabrication Resources

The school supports a wide range of fabrication tools and technologies and continues to expand its digital fabrication facilities. From 3d printing and scanning to computer numerically controlled (CNC) mills and laser cutters, the School seeks to support a wide range of student needs. The School maintains a fabrication shop with full range of mechanical tools, and has recently opened an additional space dedicated to large-format CNC equipment and assembly.

#### The Einhorn 21st Century Studio

Funded by a generous donation from alumni Steve and Sherry Einhorn, this studio won a prestigious Core77 award for innovation in learning environments. The studio supports a high degree of flexibility in a collaborative work environment, and was conceived from the ground up to adapt to new and yet-unknown technologies. The studio currently includes 3d scanning and 3d printing technologies, a 20' seamless video wall supporting wireless projection from student laptops, and mobile digitally interactive desks to streamline the analog-digital workflows of the next generation of designers.

#### The Interactive Design and Visualization Lab

The Interactive Design and Visualization Lab (IDVL) is an immersive design environment for simulating the environmental effects and multiuser experience envelope systems and architectural spaces. The lab supports visualization techniques ranging from large digital projections to immersive virtual reality technologies in order to experiment with new computational tools that support the design and development of high-performance building materials, systems and spaces. The custom-programmed design and infrared sensors for gestural user interaction, digitally projected surfaces for full-scale visualizations, and analysis software for daylighting and energy simulations.

#### Multiscale Material Systems Lab

This lab focuses on developing multiscale material systems that mediate light, heat, and air in novel ways. Located within CoE building, the lab space is configured for fabricating proof-of-concept prototypes and for conducting preliminary performance testings. It is outfitted with: 3d printers, a desktop CNC machine, foam cutter, and ceramic extruder, for fabrication; and a range of sensors, data loggers, and other equipment for physical testing.

#### • Performative Praxis Lab

PPL (pee-puh l) is a trans-disciplinary Syracuse Architecture research group housed at the Syracuse Center of Excellence (CoE). PPL's aim is to disruptively transform architecture, urban design, and planning practices through applied research, and develop sustainable design workflows and metrics. The lab leads efforts in the acquisition and implementation of scholarly collaborations and projects with industry, government, and academia. http://ppl-syr.net/

#### 🔶 Thinklab

Deep transdisciplinary thinking challenges many presumptions of straightforward multi-disciplinary collaboration. Situations are formed, expertise is networked in lieu of collaborative teams being tions being offered. This requires unique collaborative methods, techniques of creative and critical thinking, and tools and systems Thinklab supports the research, media environments in this context. The lab offers tools and techniques that enable the productive engagement of highly complex situations or problems in the area of learning support, collaboration, and exchange, and has served as host to projects in the areas of experience and interface design, learning environments, augmented reality, and computational simula-

# 👫 Financial Aid and Admissions

#### Admissions

Admission to both the master of architecture and master of science in architecture degrees requires transcript(s) of prior coursework, portfolio of creative work, academic references, a professional or research statement, and, for non-native English speakers, a TOEFL score. Applicants to the master of architecture program must also provide a GRE score.

The required portfolio must include creative and/or professional work in architecture, the visual arts, design, and/or affiliated fields. It must provide evidence of promise and potential in architecture, and reflect your interests, skills, and talent. It serves as a representation of your creative skills and aspirations, regardless of your background. If you have an art or design background, please include productions of free-hand drawings, graphic design, digital media work, sculpture, painting, photography, architectural design work, etc. If you seek entry to our programs, but do not have previous coursework in the arts, architecture, or design, please submit whatever work you have done, in or out of school, that you feel best represents your creative capabilities. All items should indicate the approximate date of production and whether the work was a result of coursework, professional or freelance activities, or collaboration. Portfolio work must be submitted online at archsyr. slideroom.com.

Students applying to the master of architecture program with qualifying baccalaureate degrees in architecture, design, or related fields may qualify for up to one year of advanced standing credit. Determinations are made by the admissions committee and course instructors based on transcript and portfolio. The application deadline for both programs is January 15th (January 10th for students applying to Syracuse University's African American Fellowship). All application details can be found online at soa.syr.edu.

#### • Financial Aid

The graduate program offers aid to incoming and continuing students based on academic qualifications and performance. We seek to support all students meeting a minimum GPA throughout the duration of the program. We view classroom teaching as a critical part of our students' education, and employ many students as graduate teaching assistants for our undergraduate program. The graduate program also sponsors design + research internships for faculty-directed efforts for new and continuing students. Domestic students are also eligible for need-based federal- and state-based aid. We encourage international students to seek assistance through the Syracuse University Slutzker Center for International Services.

#### • Contact Information

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#### Accreditation

In the United States, most state registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The National Architectural Accrediting Board (NAAB), which is the sole agency authorized to accredit U.S. professional degree programs in architecture, recognizes three types of degrees: the bachelor of architecture, the master of architecture, and the doctor of architecture. A program may be granted an eight-year, three-year, or two-year term of accreditation, depending on the extent of its conformance with established educational standards.

Doctor of architecture and mast of architecture degree programs may require a pre-professional undergraduate degree in architecture for admission. However, the pre-professional degree is not, by itself, recognized as an accredited degree.

Syracuse University School of Architecture offers the following NAAB-accredited programs B.Arch - 162 | M.Arch 110 credits

# SYRACUSE Architecture

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