

# School of Architecture

Omar Khan

Location: CFA 201

[www.soa.cmu.edu](http://www.soa.cmu.edu) (<http://www.soa.cmu.edu>)

The SoA educates students in the discipline of architecture emphasizing the role of creativity in architectural design; understanding its historical, social and environmental context; critically engaging technology in its innovation; and ethically working for social progress and justice in the built environment. Our undergraduate and graduate degree programs prepare students for the challenges facing architecture and urbanism in the twenty-first century, namely global warming, artificial intelligence and social justice. We aim to produce discipline-defining designers and thinkers in diverse global contexts.

This world-class architecture education is enhanced by our position within one of the world's leading research and entrepreneurship institutions, and by the fundamental premise that architectural excellence demands both rigorous training in fundamentals and the development of unique specializations. Students may extend their core knowledge either through concentration in architecture subdisciplines like urban design, sustainable design or computational design, or through interdisciplinary interaction with CMU's other renowned programs in the sciences, humanities, business and engineering. Though every SoA student graduates with intensive architecture knowledge, no two graduates leave with the same education.

In the twenty-first century, few architecture problems are straightforward. Graduates of SoA excel in the roles architects have performed for centuries - and in new roles catalyzed by the depth and breadth of their education - to create and execute innovative solutions to a huge range of emerging global challenges.

## Undergraduate Degree Programs

The SoA offers two baccalaureate degree programs: the 5-year, professional Bachelor of Architecture (B.Arch), and the 4-year Bachelor of Arts in Architecture (B.A.). Both programs begin with the same studio-based curriculum in the first year, but then begin to diverge in terms of opportunities and outcomes. The B.Arch requires 10 studios and an extensive set of required professional courses, while the B.A. requires a minimum of 4 studios and fewer technical courses, all of which can be spread out over the four years of the program, and thus allow students to explore different opportunities in their studies.

Undergraduate students are admitted to the SoA without a declared degree program. By the end of the second year, students must select either the B.A. or the B.Arch degree program. The student's academic advisors, faculty, and Head provide mentoring and information to guide the student in selecting their degree option.

## Bachelor of Architecture Program (B.Arch)

The Bachelor of Architecture (B.Arch) is a 5-year, first professional degree program accredited by the National Architectural Accrediting Board (NAAB, <https://www.naab.org/>) with a carefully defined set of "Program Criteria" (PC) and "Student Performance Criteria" (SPC). The B.Arch is for students proposing to pursue a career as a licensed architect or related profession, and centers around a carefully structured set of professional and technical courses about building design and construction, alongside the social, cultural and professional contexts in which architects operate. Our students graduate with a professional degree that prepares them to excel in practice—but that also launches them into key specialties within and around the profession.

Due to the technical nature of the B.Arch program at CMU, it is STEM-eligible, meaning that in addition to one year of Optional Practical Training (OPT), an international student on an F-1 visa may apply for a 24-month STEM OPT extension following graduation.

## Statement on NAAB-Accredited Degrees

In the United States, most 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 professional degree programs in architecture offered by institutions with U.S. regional accreditation, 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 term, an eight-year term with conditions, or a two-year term of continuing

accreditation, or a three-year term of initial accreditation, depending on the extent of its conformance with established education standards.

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

The Carnegie Mellon University School of Architecture offers the following NAAB-accredited programs:

-- Bachelor of Architecture (450 units)

-- Master of Architecture (Pre-professional degree or equivalent + 180 units)

The next NAAB accreditation visit for the Bachelor of Architecture is scheduled for 2026.

The next NAAB accreditation visit for the Master of Architecture is scheduled for 2030.

The full 2020 NAAB Conditions for Accreditation can also be found on NAAB's website at: <https://www.naab.org/accreditation/about-accreditation> (<https://www.naab.org/accreditation/about-accreditation/>).

## Bachelor of Arts in Architecture Program (B.A.)

The Bachelor of Arts in Architecture (B.A.) is a 4-year liberal studies degree program that allows and encourages interdisciplinary exploration. The program is built around a core foundation of architectural studios and technical coursework, but more than half of the units required for graduation are general studies courses and flexible electives. B.A. students have the opportunity to double major, test the boundaries of the discipline, and explore a variety of interests. If you are a student that embraces creativity, is curious about the world around you, and enjoys engaging both the left and right sides of your brain, the B.A. program could be a perfect fit for you.

As a 4-year, pre-professional architecture program, the B.A. allows those who are interested to continue in architecture with a 2-year professional M.Arch degree program (often called a 4+2 degree), or to go on to specialize in other fields in graduate school, including urban design, landscape architecture or other fields related to design, the built environment, virtual worlds, community engagement, sustainability, and more. The B.A. also makes it possible for students to transfer into architecture from other studies.

In the first year, the B.A. program begins with the same studio-based curriculum as the B.Arch program, but then begins to diverge in terms of opportunities and outcomes. The B.A. requires only the first four studios and the core courses from the first two years of the B.Arch sequence, and these can be spread out over the four years of the program. Students may take more studios, specialize in particular aspects of architecture, or explore broadly.

For students seeking to integrate architecture with another field of study, CMU also offers the BXA Intercollege Degree Programs (<http://coursecatalog.web.cmu.edu/intercollegeprograms/bxaintercollege/>). BXA students graduate with a Bachelor of Humanities and Arts, a Bachelor of Science and Arts, or a Bachelor of Computer Science and Arts degree.

## B.Arch Curriculum

Minimum units required for Bachelor of Architecture 450

### First Year: Poiesis

48-100	Architecture Design Studio: POIESIS STUDIO 1	15
48-104	Shop Skills	3
48-120	Digital Media I	6
48-121	Drawing I	6
48-119	Design Ethics & Social Justice in Architecture	3
76-101	Interpretation and Argument	9
99-101	Core@CMU	3
48-105	Architecture Design Studio: Poiesis Studio 2	15
48-112	Digital Fabrication Skills	2
48-125	Digital Media II	6
48-126	Drawing II	6
48-111	Exploring Pittsburgh	3

48-240	History of World Architecture, I	9
xx-xxx	Elective	6

**Second Year: Poiesis**

48-200	Architecture Design Studio: Poiesis Studio 3	18
48-215	Materials & Assembly	9
48-116	Introduction to Building Performance	3
48-214	Generative Modeling	9
xx-xxx	Elective	6
48-205	Architecture Options Studios	18
48-241	Modern Architecture: History & Theory	9
48-247	Fundamentals of Computational Design	9
48-026	Second Year Seminar: Architecture Edition II	3
xx-xxx	Elective	6

**Third Year: Praxis**

48-300	Architecture Design Studio: Praxis Studio 1	18
48-234	Structural Design 1: Form and Forces	6
48-315	Environment I: Climate & Energy in Architecture	9
xx-xxx	Elective	9
48-305	Architecture Design Studio: Praxis Studio 2	18
48-324	Structural Design 2: Materials and Analysis	9
48-432	Environment II: Design Integration of Active Building Systems	9
48-380	Constructing Value(s): Economies of Design	6
xx-xxx	Elective	6

**Fourth Year: Praxis & ASOS**

48-400	Architecture Design Studio: Praxis Studio 3	18
48-250	Urbanism and the Social Production of Space	9
48-561	Professional Development	3
48-xxx	Architectural History III (Selective)	9
xx-xxx	Elective	9
48-405	Advanced Synthesis Options Studio II	18
48-381	Issues of Practice	6
48-383	Ethics	6
xx-xxx	Elective	9
xx-xxx	Elective	5

**Fifth Year**

48-500	Advanced Synthesis Options Studio	18
xx-xxx	Elective	9
xx-xxx	Elective	9
xx-xxx	Elective	6
48-510	Advanced Synthesis Options Studio IV	18
or 48-519	Architecture Design Studio: Thesis II/ Independent Project	
xx-xxx	Elective	9
xx-xxx	Elective	9
xx-xxx	Elective	6

## B.A. Curriculum

Minimum units required for Bachelor of Arts in Architecture 360

**Architectural Design Studios**

48-100	Architecture Design Studio: POIESIS STUDIO 1	15
48-105	Architecture Design Studio: Poiesis Studio 2	15
48-200	Architecture Design Studio: Poiesis Studio 3	18
48-205	Architecture Options Studios	18

**History, Urbanism & Ethics Stream (30 units)**

48-104	Shop Skills	Var.
48-112	Digital Fabrication Skills	2
48-116	Introduction to Building Performance	3

48-215	Materials & Assembly	9
48-234	Structural Design 1: Form and Forces	6

**Architectural Technologies Stream (25 units)**

48-104	Shop Skills	Var.
48-112	Digital Fabrication Skills	2
48-116	Introduction to Building Performance	3
48-215	Materials & Assembly	9
48-234	Structural Design 1: Form and Forces	6

**Computation & Representation Stream (45 Units)**

48-120	Digital Media I	6
48-121	Drawing I	6
48-125	Digital Media II	6
48-126	Drawing II	6
48-214	Generative Modeling	9
48-247	Fundamentals of Computational Design	9

**General Studies & Electives**

99-101	Core@CMU	3
48-025	First Year Seminar: Architecture Edition	3
48-026	Second Year Seminar: Architecture Edition II	3
76-101	Interpretation and Argument	9
48-xxx	Architecture Electives	45
xx-xxx	University Electives (Outside SoA)	45
xx-xxx	Flex Electives (In or out of SoA)	89

## Minors in Architecture

The SoA offers several minors in various specialty subjects related to architecture, some are only available to non-architecture students, others are only available to architecture majors, and still others can be taken by all CMU students. For the most up-to-date list of minors, see: <https://www.architecture.cmu.edu/minors> (<https://www.architecture.cmu.edu/minors/>).

**Non-architecture students** may minor in: Architecture, Architectural History, Architectural Representation & Visualization, Architectural Technology, and Computational Design.

**Architecture students** may minor in: Architectural Design Fabrication, Architectural History, Architectural Representation & Visualization, Building Science, and Computational Design.

The **Minor in Architecture** sequence is for students who intend to develop intellectual links to the architectural profession. The scope of courses offered includes a full spectrum of professional issues in architecture. (*Available to non-architecture majors only.*)

The **Minor in Architectural Design Fabrication** is intended for students who wish to develop focused, disciplinary expertise in both analog and digital material methods for shaping the built environment and become involved in a community of practice dedicated to a rigorous pursuit of *making* as a mode of architectural research and cultural expression. It is also for students interested in gaining advanced placement in the SoA's Master of Advanced Architectural Design (MAAD) (<https://soa.cmu.edu/maad/>) program. (*Available to architecture majors only.*)

The **Minor in Architectural History** is intended for candidates interested in the history of architecture in its many manifestations, including high style and vernacular buildings, western and non-western traditions, built and theoretical works, and rural to urban contexts. Students wishing to pursue the minor should meet with the Architecture advisor to determine if a course is eligible. (*Available to both architecture majors and non-architecture majors.*)

The **Minor in Architectural Representation and Visualization** is intended for students who wish to develop particular skills in architectural representation, and for those who are interested in gaining advanced placement in the SoA's Master degree program in Computational Design (MSCD) (<https://www.architecture.cmu.edu/computational-design/>). (*Available to both architecture majors and non-architecture majors.*)

The **Minor in Architectural Technology** is intended for students who seek to develop intellectual links to the technical aspects of the profession. (*Available to non-architecture majors only.*)

The **Minor in Building Science** is intended for students that want to deepen their knowledge in the building sciences, and for those who are interested in gaining advanced placement in the SoA's Master degree programs in Building Performance & Diagnostics (MSBPD) (<https://>

soa.cmu.edu/bpd/) or Sustainable Design (MSSD) (<https://soa.cmu.edu/mscd/>). (Available to architecture majors only.)

The **Minor in Computational Design** is intended for students who wish to engage with computation as a vehicle of generative, material, and spatial design exploration, and for those who are interested in gaining advanced placement in the SoA's Master of Science in Computational Design (MSCD) (<https://soa.cmu.edu/mscd/>). (Available to both architecture majors and non-architecture majors.)

## Advanced Standing in Master Degree Programs

The SoA offers a unique opportunity to undergraduate students who wish to pursue a post-professional Master's degree in an architecture-related field. The Accelerated Master's Program (AMP) (<https://soa.cmu.edu/accelerated/>) offers baccalaureate students the opportunity to expedite their completion of a Master's degree, saving both time and money—and allowing them to hit the job market with specialized knowledge and two CMU degrees. Baccalaureate students can pursue a graduate degree in the following subjects: Master of Architecture (M.Arch) (B.A. students only), Advanced Architectural Design, Architecture-Engineering-Construction Management, Building Performance and Diagnostics, Computational Design, Sustainable Design, and Urban Design. An AMP student must complete all of the units required by BOTH programs, less a maximum of 48 units that can be double-counted. For instance, B.Arch + MSSD-Applied would be 450 units + 135 units less 48 double-counted units, or 537 total units total for two degrees. B.Arch students may begin pursuit of a post-professional Master's degree through AMP as early as their third year.

## Student Advising

Architecture students can receive advice from many sources, including the faculty, staff, and administration of the School. All SoA undergraduates are urged to meet with the Senior Academic Advisor to review their academic progress and plans before each semester. Such meetings are important to take full advantage of elective possibilities within the curriculum, general progress toward graduation, and professional goal-setting. Students may also check their progress using the online academic audit in the Student Information Online (SIO) and should review the audit results with the senior academic advisor. The Academic Advisor will assist students with registration, academic audits, transfer credits, study abroad, SoA minors, finals grades and academic actions, as well as SoA and university policies and resources.

In addition, we encourage all of our students to become involved with student organizations such as AIAS or NOMAS, as well as committees such as the Student Advisory Council (SAC) in order to learn from peers. Students should seek advice about the Architectural Experience Program (AXP) and architectural licensing through the Architect Licensing Advisor

## Study Abroad

The SoA strongly encourages students to study abroad. The perspective gained through immersion in another culture and language is invaluable. A student is exposed to architectural subjects not readily available at CMU and will study architecture directly in a foreign context. The Office of International Education (OIE) is an excellent resource for getting started for study abroad planning.

Study abroad can fall into four categories: University Direct Exchanges, University Sponsored Programs, External Programs, and Departmental Summer Programs.

Students are allowed one semester abroad for which they receive studio credit except for those students at approved direct, year-long exchange programs. Students may study abroad in the Fall, Spring, or Summer semesters. Careful planning and scheduling of your courses are necessary when incorporating a study away experience into your curriculum. Students should investigate and start making decisions to study abroad by the fall of their second year, so they can plan their courses accordingly. Please see the academic advisor prior to making any decisions on what term to schedule your study away experience.

To qualify for a study abroad program other than the departmental summer programs, a student must have completed their third year of the program, have a minimum overall QPA of 3.00, and be in good academic standing (no current academic actions).

Students in SoA departmental summer programs must have completed their first year, and must be free of any academic actions for the semester prior to studying away, or permission may be denied. Students can petition the UPEC for exceptions.

Students who participate in a study abroad program for one semester will transfer non-studio course credit by submitting course descriptions of each course taken as well as an official transcript from the host Institution. Official translated transcripts must be submitted to the academic advisor before the beginning of the academic year to receive transfer credit. Grades are not transferred, only credits. Transfer credit is awarded upon receipt of an official translated transcript and only for courses with the grade of a C or better (not C-). When students return from study abroad, they must pin up original work during the study away exhibit, which will be subject to review by the UPEC or designated faculty.

## Academic Standards

The College of Fine Arts seeks to support each of our students on their pathway towards graduation. Thus, we review each student's academic performance and progress towards degree at the close of each semester. Academic actions are designed to notify a student of specific academic and graduation requirements, outline goals for completion, and identify avenues of support. Academic actions are opportunities for students to reflect, grow, and get connected with appropriate campus resources to help them succeed.

**To stay on track for graduation, each student is expected to complete a minimum of 36\* units each semester, have both a semester and cumulative QPA of at least 2.0, pass at least 80% of their attempted units for the semester, as well as to make adequate academic progress towards their declared degree. Adequate progress requires that a student registers for and passes all of their degree's critical coursework as defined in each program's curriculum.**

To remain in good academic standing a student must achieve the following criteria:

1. Pass at least 80% of attempted units in the current semester.
2. Achieve a minimum QPA of 2.0 both in the current semester and cumulatively.
3. Make adequate academic progress towards their declared degree as defined by their degree track.

Students in the School of Architecture are expected to register for and successfully complete their required Architecture Design Studio sequence in order to make Adequate Academic Progress towards their declared degree. Students are required to pass all required Architecture Design Studios with a D or better, with the exception of the three Praxis studios. These studios must be passed with a C or better to progress in the sequence. Refer to the Academic Regulations section of the handbook for additional details. If a student does NOT make progress towards their designated degree path they will receive an academic notification. See CFA Handbook (<http://coursecatalog.web.cmu.edu/schools-colleges/collegeoffinearts/collegeoffinearts.pdf>) for specifics concerning academic standards, academic policies, and the academic action sequence.

Incomplete grades will be conditionally actioned by the default grades until the student completes the missing coursework. If the student does not complete their missing coursework by the faculty deadline agreed upon, their default grade and action will become permanent.

*\*Students approved for Part Time Status through the Office of Disability Resources will work with their Program's administration to determine the minimum number of units needed to remain in Good Standing.*

## Faculty

JARED ABRAHAM, Associate Studio Professor

VICKY ACHNANI, Associate Studio Professor

NILOUFAR ALENJERY, Special Faculty

SAROSH ANKLESARIA, Assistant Teaching Professor

MARY-LOU ARSCOTT, Studio Professor & Associate Head

NINA BARBUTO, Adjunct Faculty

JOSHUA BARD, Associate Professor & Associate Head

WILLIAM BATES, Adjunct Faculty

HEATHER BIZON, Special Faculty

DARAGH BYRNE, Associate Teaching Track

DANIEL CARDOSO LLACH, Associate Professor

GLORIA CHANG, Special Faculty

XIN CHEN, Adjunct Instructor

JIMMI WEI-CHUN CHENG, Special Faculty  
LORI CLAUS, Special Faculty  
ERICA COCHRAN HAMEEN, Associate Professor & Director of DEI  
DOUG COOPER, Andrew Mellon Professor  
DANA CUPKOVA, Professor  
GERARD DAMIANI, Associate Professor  
STEFANI DANES, Adjunct Faculty  
ASLI DARGA,, Adjunct Faculty  
JEFFREY DAVIS, Adjunct Faculty  
JEREMY FICCA, Associate Professor, Director dFAB  
KRISTINA FISHER, Adjunct Faculty  
LAURA GARAFALO, Associate Professor  
SINAN GORAL, Adjunct Faculty  
BRAD GROFF, Adjunct Faculty  
STEFAN GRUBER, Associate Professor  
KAI GUTSCHOW, Associate Professor & Associate Head  
NAJEEB HAMEEN, Adjunct Faculty  
TOM HARDY, Adjunct Faculty  
VOLKER HARTKOPF, Professor Emeritus  
HAL HAYES, Studio Professor  
NEAL HITCH, Special Faculty  
JOHN HOLMES, Shop Director  
MATTHEW HUBER, Adjunct Faculty  
THEODOSSIS ISSAIAS, Special Faculty  
MARYAM KARIMI, Special Faculty  
LYNN KAWARATANI, Liason Librarian to SoA  
OMAR KHAN, Professor & Head  
JEFF KING, Adjunct Faculty  
JONATHAN KLINE, Studio Professor  
RAMESH KRISHNAMURTI, Professor Emeritus  
MATTHEW KRISSEL, Adjunct Faculty  
KRISTEN KURLAND, Teaching Professor  
JONGWAN KWON, Assistant Teaching Professor  
KHEE POH LAM, Professor Emeritus  
JOSHUA D. LEE, Assistant Professor  
JUNEY LEE, Assistant Professor  
STEPHEN R. LEE, Professor Emeritus  
SUZI ZEKUN LI, Graduate Instructor  
NICK LIADIS, Adjunct Faculty  
VIVIAN LOFTNESS, University Professor, Paul Mellon Professor  
JACKIE JOSEPH PAUL MCFARLAND, Special Faculty  
CHRISTINE MONDOR, Special Faculty  
YAEL NETSER, Graduate Instructor  
MELANIE NGAMI, Adjunct Instructor  
RICHARD NISA, Adjunct Faculty  
VERNELLE NOEL, Assistant Professor  
PAUL OSTERGAARD, Adjunct Faculty  
YIQUN PAN, Special Faculty  
PAUL PANGARO, Visiting Scholar in Computational Design  
MISRI PATEL, Anne Kalla Visiting Professor  
STEPHEN QUICK, Adjunct Faculty  
NIDA REHMAN, Assistant Professor

AZADEH OMIDFAR SAWYER, Assistant Professor  
NATHAN SAWYER, Special Faculty  
CHARLIE SCHMIDT, Adjunct Instructor  
DIANE SHAW, Associate Professor  
TULIZA SINDI, Anne Kalla Visiting Professor  
STEVEN SONTAG, Assistant Shop Director  
BEA SPOLIDORO, Adjunct Faculty  
ANDREW STONE, Thomas Visiting Professor  
LOUIS SUAREZ, Adjunct Faculty  
NAZIA TARRANUM, Adjunct Faculty  
FRANCESCA TORELLO, Special Faculty  
ALICIA VOLCY, Adjunct Faculty  
GARRET WOOD-STERNBURGH, Adjunct Instructor  
HEATHER WORKINGER MIDGLEY, Adjunct Faculty  
TOMMY CHEEMOU YANG, Associate Studio Professor