SCI-Arc

2022 – 2023 Course Catalog

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Courses & Degree Requirements

UNDERGRADUATE DEGREE (B.ARCH)
5 YEAR (10 TERM) PROGRAM

Professional Bachelor of Architecture (B.Arch) program, accredited by the National Architectural Accrediting Board (NAAB).

Kristy Balliet
Marcelyn Gow
Undergraduate Program Chair

SCI-Arc's Bachelor of Architecture (B.Arch) program is a 5-year professional degree, accredited by the National Architectural Accrediting Board (NAAB), focusing on both design excellence and intellectual breadth through a liberal arts-based education.

The design culture of the B.Arch program is focused both on the discipline of architecture in terms of its history, theory, stakeholders, and techniques, and on the practice of architecture in terms of building technology, innovative means of construction, strategy, and professional practice. The core of the program is the design studio, where students build visual literacy, learn design skills, test ideas, and receive continuous, personal feedback on their work from studio faculty. SCI-Arc's studio faculty is primarily comprised of practicing architects, which allows students a window into the lives of architects, as well as provides options for pursuing professional internships and employment outside the school. In the first four years of core design studio students build a robust set of techniques and sensibilities for making and appreciating architecture. The B.Arch program culminates with an Undergraduate Thesis project completed in the fifth year, for which students are asked to develop and present a holistically-researched position in relation to contemporary architectural discourse articulated through a highly-developed building design project.

The four parallel paths of the B.Arch program enrich and inform design studio culture: Liberal Arts, Architectural History + Theory, Visual Studies, and Applied Studies. Liberal Arts coursework includes art history and theory, film history and theory, race and gender studies, contemporary science and technology, history of civilization, philosophy, literature, rhetoric and debate, and a range of other subjects. These are taught as independent forms of cultural knowledge that can reconfigure conventional ways of thinking about architecture, space, cities, and audiences. Included in this curriculum is an ongoing series of Masterclasses taught by international figures in their areas of expertise, engaging students on the issues of our time.

Architectural History + Theory teaches students how architecture exists simultaneously as a form of knowledge, a cultural expression, a set of building objects, and a unique discourse that continuously informs the work of contemporary architects. Visual Studies introduces students to new ways of seeing the world and the importance of representation in the production of architectural ideas. Applied Studies focuses on cutting-edge methods of building design, documentation, and delivery, and emphasizes the importance of linking aesthetic impulses to contemporary building technologies in a process of discovery. This includes coursework on sustainable building materials, planetary energy, and new forms of industrial production for the twenty-first century.

SCI-Arc's B.Arch program produces individuals who are savvy, broad-thinking, and primed to become leaders of their profession. They emerge with sophisticated portfolios of work that make them highly competitive in the global architectural marketplace. B.Arch graduates are poised to establish their own practices and become licensed professionals, enter top international architectural offices, or continue on to higher education in the world's most competitive graduate programs.

The Bachelor of Architecture degree program at SCI-Arc includes a fully integrated Liberal Arts curriculum broken into 12 core seminars and 3 elective seminars, comprising a total of 45 units of non-architectural content.

Course structure

I. Foundation program

First term — 1A	**Second term — 1B**
DS1010 — 6 units 1A Studio: Objects I **LA8010— 3 units** Introduction to Design Cultures **LA8011 — 3 units** Forms of Writing I **LA8012 — 3 units** Introduction to Film **LA8110 — 3 units** Race in America	**DS1011 — 6 units** 1B Studio: Objects II Prerequisite: DS1010 **HT2012 — 3 units** History of Architecture and Urbanism I **LA8014 — 3 units** Art History I **LA8111 — 3 units** Forms of Writing II **VS4011 — 3 units** Visual Studies I

Students who fall behind their studio level by three or more required courses will be required to enroll in seminars only during the subsequent term.

B.Arch students must earn an additional one (1) unit of elective credit at any time during their curriculum through participation in masterclasses, workshops, gallery installations, or community outreach program.

Third term — 2A	Fourth term — 2B
DS1020 — 6 units 2A Studio: Worlds I Prerequisite: DS1011 **HT2024 — 3 units** History of Architecture II Prerequisite: HT2012 **LA8016 — 3 units** Art History II Prerequisite: LA8014 **AS3021 — 3 units** Structures I **VS4020 — 3 units** Visual Studies II Prerequisite: VS4011	**DS1021 — 6 units** 2B Studio: Worlds II Prerequisite: DS1020 **HT2025 — 3 units** History of Architecture III Prerequisite: HT2024 **LA8112 — 3 units** Core Seminar I: Contemporary **AS3030 — 3 units** Structures II Prerequisite: AS3021 **VS4021 — 3 units** Visual Studies III Prerequisite: VS4020

Students are required to submit a portfolio at the completion of the 2B studio prior to advancing into the fifth term.

II. Core program

Fifth term — 3A	Sixth term — 3B
DS1030 — 6 units 3A Studio: Assemblies I Prerequisite: DS1021 and 2B Gateway Portfolio **LA8113 — 3 units** Core Seminar II: 20th Century Prerequisite: LA8112 **AS3033 — 3 units** Tectonics **Elective — 3 units**	**DS1031 — 6 units** 3B Studio: Assemblies II Prerequisite: DS1030 **LA8114 — 3 units** Core Seminar III: Modern Era Prerequisite: LA8113 **AS3020 — 3 units** Environmental Systems I **Liberal Arts Elective — 3 units**

III. Advanced studies

Seventh term — 4A	Eighth term — 4B
DS1040 — 6 units 4A Studio: Positions Prerequisite: DS1031 **AS3031 — 3 units** Environmental Systems II **AS3040 — 3 units** Design Development **Liberal Arts Elective — 3 units**	**Vertical studio— 6 units** Prerequisite: DS1040 **LA8115 — 3 units** Core Seminar IV: Medieval Era Prerequisite: LA8114 **HT2035 — 3 units** Rhetoric I: Contemporary Discourse Prerequisite: HT2025 **AS3041 — 3 units** Advanced Construction and Project Delivery (Construction Documents) **Elective or CPT* — 3 units**

Students are required to submit a portfolio at completion of the Vertical (4B) studio before advancing into the ninth term.

*** Students may apply for CPT units after completing their 3B term. Only two 3 unit electives can be used for CPT. Students wishing to apply for CPT units must enroll with the Registrar and Academic Advisor's Offices. Approval for coursework is made by the Director's Office.**

Ninth term — 5A	Tenth term — 5B
Vertical Studio — 6 units **HT2050 — 3 units** Thesis Research Prerequisite: Completion of all Core and Vertical Studios **AS3050 — 3 units** Professional Practice **LA8116 — 3 units** Core Seminar V: Ancient Era Prerequisite: LA8115	**DS1051 — 9 units** Thesis Project Studio Prerequisite: HT2050 and Completion of all Core and Vertical Studios **Liberal Arts Elective — 3 units** **Elective or CPT— 3 units**

GRADUATE DEGREE PROGRAMS

Elena Manferdini
Graduate Programs Chair

For over 40 years, SCI-Arc's collaborative and immersive environment of students, theorists, and practitioners empowered the next generation of architects. All the graduate programs are led by faculty engaged in worldwide architectural practices in fields ranging from design and engineering to visual and cultural studies. Its curriculum is continuously and dynamically updated in a focused learning environment that can exist only in an institution entirely devoted to architecture. At the same time, the school promotes a critical cross-pollination with other fields of art and design, and the curriculum is forged to promote synthesis of thinking, inquiry, and execution. A range of public symposia, lecture series, technology labs, seminars, workshops, publications, and special projects create a platform for debate, challenging conventional ways of learning in a classroom.

The graduate programs at SCI-Arc attract a diverse and international student body that after graduation assumes leadership roles in shaping the built environment. Because the school is committed to influencing the evolution of our global culture and is simultaneously grounded in the architectural reality of Los Angeles, each program provides a rigorous and unusually intimate education, able to cultivate and recognize experimentation and creative freedom.

SCI-Arc offers two professional Master of Architecture degrees, M.Arch 1 and M.Arch 2, both accredited by National Architectural Accrediting Board (NAAB).

M.Arch 1
3-Year (7-Semester) Program

The Master of Architecture 1 is a three-year (seven-semester) professional program open to applicants who hold a bachelor's degree or equivalent in any field of study. This program requires attendance for the fall and spring terms of the first two years, and the fall, spring, and summer terms of the final year.

Central to the program's philosophy is a firm commitment to architectural discipline and design excellence, achieved through a comprehensive course of study that provides students with a solid intellectual base and understanding of the history, theory, technology, and professional practice of architecture.

Starting with a four-semester core sequence, students develop a framework for the discipline, as well as a strong foundation for critical inquiry and experimentation. Alongside an international design faculty, renowned across a wide breadth of fields, and a distinguished group of critics and theorists, students challenge conventional ways of learning and attain the knowledge to shape our contemporary environment.

Upon completion of the core sequence, students are encouraged to develop a personal point of view through applied research in advanced studios and seminars.

The M. Arch 1 program culminates with a design thesis that exemplifies SCI-Arc's mission to develop independent thinking and promote research and innovation. The depth and rigor of Graduate Thesis also serve as a transition from graduate school to professional practice.

Course Structure

First term — 1GA	**Second term — 1GB**
DS1100 — 6 units Fundamental Design Studio I	**DS1101 — 6 units** Fundamental Design Studio II Prerequisite: DS1100
HT2100— 3 units Introduction to Contemporary Architecture	**HT2101 — 3 units** History of Architecture and Urbanism I Prerequisite: HT2100
AS3100 — 3 units Materials and Tectonics	**AS3120 — 3 units** Structures II Prerequisite: AS3101
AS3101 — 3 units Structures I Prerequisite: AS3100	**VS4101 — 3 units** Visual Studies II Prerequisite: VS4100
VS4100 — 3 units Visual Studies I	

Students are required to submit a portfolio at the completion of the 1GB studio prior to advancing into the third term.

Third term — 2GA	Fourth term — 2GB
DS1120 — 6 units Comprehensive Design Studio Prerequisite: DS1101 **HT2120 — 3 units** History of Architecture and Urbanism II Prerequisite: HT2101 **AS3124 — 3 units** Environmental Systems **VS4120 — 3 units** Visual Studies III Prerequisite: VS4101	**DS1121 — 6 units** Architecture and Urban Design Studio Prerequisite: DS1120 **HT2121 — 3 units** History of Architecture and Urbanism III Prerequisite: HT2120 **AS3122 — 3 units** Design Development and Documentation Prerequisite: AS3123 **VS4121 — 3 units** Visual Studies IV Prerequisite: VS4120

***Students may apply for CPT units after completing the 2GB semester. Only two 3 unit electives can be used for CPT. Students wishing to apply for CPT units must enroll with the Registrar and Academic Advisor's Offices. Approval for coursework is made by the Director's Office.**

Students are required to complete all the above courses prior to advancing into the fifth term.

Fifth term — 3GA	Sixth term — 3GB
Vertical Studio — 6 units **AS3130 — 3 units** Practice Environments: Contracts, Liabilities, and Business Models **AS3140 — 3 units** Advanced Project Delivery **HTXXXX — 3 units** **Contemporary Architectural** **Discourse** **Prerequisite: HT2201**	**Vertical Studio — 6 units** **HT2410 — 3 units** Thesis Research **Elective — 3 units** **or CPT*** **Elective — 3 units** **or CPT***

Students are required to submit a portfolio at the completion of the 3GA studio prior to advancing into the thesis prep (3GB) term.

Students are required to complete all course requirements up to the sixth term (3GB) prior to advancing into the graduate thesis term.

Seventh Term— 4GA (summer)
DS1420 — 9 units Graduate Thesis Prerequisite: HT2410 **Elective — 3 units** **or CPT** **Elective — 3 units** **or CPT**

M.Arch 2

2-Year (5-Semester) Program

SCI-Arc's M.Arch 2 is a two-year, five-semester program leading to a professional Master of Architecture degree accredited by the National Architectural Accrediting Board (NAAB). The M.Arch 2 program is open to applicants who hold a Bachelor of Arts in Architecture, Bachelor of Science in Architecture, or Bachelor of Architecture (B.Arch) degree. This program requires attendance for the fall and spring terms of the first year, and the fall, spring, and summer terms of the final year.

The M.Arch 2 program is specifically designed to build upon and reconsider knowledge gained from undergraduate degrees in architecture. Shaped as a design research platform, SCI-Arc's M.Arch 2 program advances contemporary experimentation, propels advanced formal explorations, expands the boundaries of conventional architectural practice, and offers students an alternative educational model that promotes close collaboration with a team of faculty and consultants at the top of the field. During the first year, the program operates as a laboratory for emerging techniques and technologies. Students are exposed to the latest architectural theories and design methodologies and develop contemporary design languages within historical and contemporary contexts.

The M.Arch 2 curriculum starts with a two-semester core sequence during which students are exposed to the latest architectural theories and design methodologies, and develop contemporary design languages within historical and contemporary contexts. Upon completion of the core sequence, students choose from a variety of advanced studios and seminars in which they investigate the latest innovations in architectural technology, advance new approaches to design analysis, and innovate through applied research.

M.Arch 2 students complete their studies with a presentation and public exhibition of a thoroughly researched architectural thesis. Select Graduate Thesis projects are featured for extended public display in the SCI-Arc Gallery.

Required Courses

The Academic Advisor reviews the transcripts of students entering the M.Arch 2 program to verify that they have completed courses comparable to the following core Applied Studies classes offered at SCI-Arc: AS3101: Structures I; AS3120: Structures II; and AS3124: Environmental Systems I: Light, Air, and Sound. Students who have not passed these classes are required to do so. M.Arch 2 students who have passed a sequence of courses on structures during their undergraduate courses at other institutions, but have not been introduced to seismic issues, are required to take a course on that subject before the end of their second term at SCI-Arc. Incoming M.Arch 2 transcripts will also be evaluated for achievement in the NAAB requirements for Architectural Traditions.

Course structure

First term — 2GAX	Second term — 2GBX
DS1200 — 6 units Computational Design Studio I	**DS1201 — 6 units** Computational Design Studio II Prerequisite: DS1200
HT2200 — 3 units Theories of Contemporary Architecture I	**HT2201 — 3 units** Theories of Contemporary Architecture II Prerequisite: HT2200
AS3200 — 3 units Advanced Material and Tectonics	**AS3201— 3 units** Advanced Building Systems Prerequisite: AS3200
AS3302 — 3 units Advanced Structural Systems	
VS4200 — 3 units Visual Studies I	**VS4201 — 3 units** Visual Studies II Prerequisite: VS4200

Students are required to complete all 2GAX and 2GBX courses prior to advancing into the third term.

2GAX Students who do not meet NAAB SPC requirements for A.9- Historical Traditions and Global Culture will be required to take HT2101 | History of Architecture and Urbanism I.

Students are required to submit a portfolio at the completion of the 2GBX studio prior to advancing into the third term.

*** Students may apply for CPT units after completing the 2GBX semester. Only two, 3 unit electives can be used for CPT. Students wishing to apply for CPT units must enroll with the Registrar and Academic Counselor's Offices. Approval for coursework is made by the Directors Office.**

Third term — 3GAX	Fourth term — 3GBX
Vertical Studio — 6 units **AS3222 — 3 units** Design Development and Documentation Prerequisite: AS3201 and AS3302 **HTXXXX — 3 Units** **Contemporary Architectural Discourse** Prerequisite: HT2201 **Elective — 3 units** **or CPT ***	**Vertical Studio — 6 units** **HT2410 — 3 units** Thesis Research **AS3230 — 3 units** Practice Environments: Contracts, Liabilities, and Business Models **Elective — 3 units** **or CPT***

Students are required to submit a portfolio at the completion of the 3GAX studio prior to advancing into the thesis prep term.

Students are required to complete all 3GAX and 3GBX courses prior to advancing into the graduate thesis term.

Fifth Term — 4GAX (summer)
DS1420 — 9 units Graduate Thesis Prerequisite: HT2410 **Elective — 3 units** **or CPT*** **Elective — 3 units** **or CPT***

POSTGRADUATE PROGRAMS

SCI-Arc EDGE, Center for Advanced Studies in Architecture
David Ruy, Postgraduate Programs Chair

SCI-Arc EDGE is a new platform for advanced studies in architecture. Its innovative postgraduate degree programs are designed to test the theoretical and practical limits of architectural innovation in order to launch new architectural careers for the twenty-first century. Each program identifies a distinct territory in the emerging milieus of the contemporary world and empowers students to become active stakeholders in the construction of coming worlds.

The scope of what an architect can do is expanding like never before. Everything is potentially an architectural problem, the solutions to which require training, research, and speculation. As architecture becomes more specialized in its expertise and more diverse in its applications, it simultaneously necessitates programs of advanced study that can be more targeted, focused, and innovative. Given the complexities of the contemporary world and the intense demands being made on the abilities of architects to meet challenges, SCI-Arc EDGE programs are carefully designed to develop advanced expertise that a general professional degree cannot address.

The curriculum is choreographed to promote unexpected conversations across the various areas of study represented by each program. Collaboration is an important principle of SCI-Arc EDGE. It is a platform for advanced students to share knowledge as they develop their areas of expertise. Within SCI-Arc EDGE's postgraduate curricula, new concepts and ways of working continue to emerge that will change global perceptions of what architecture can do now and in the future.

Master of Science in Architectural Technologies

SCI-Arc EDGE, Architectural Technologies is a one-year (three-semester) postgraduate degree program leading to a Master of Science in Architectural Technologies.

The Architectural Technologies program provides hands-on experience with emerging technologies currently impacting architectural production and challenges students to develop a robust conceptual and critical framework for understanding technology's pervasive influence on the world we inhabit. Though the past three decades have brought about profound changes in the field via digital design and fabrication, an entirely new class of technologies is currently transforming architecture through artificial intelligence, machine-based vision, and automated design labor. As the digital revolution matures and establishes a new status quo for architecture, a new platform-based design economy is currently emerging as the next transformative event for architecture. The program actively engages this technological phenomenon and seeks to cultivate expertise and criticality, both of which will be necessary for the initiation of new technology-focused careers in architecture.

The program is organized as a year-long research project, which leverages SCI-Arc's identity of entrepreneurship and positions students to join the emerging platform-based economy. Coursework in Architectural Technologies builds proficiency in software and platform development and challenges students to develop their own automated infrastructures as related to problems of architectural practice. In anticipation of future technologies that haven't yet been imagined or invented, the program develops new methodologies for reimagining technology's long-standing relationship to architecture in general.

Course structure

First Term (fall)	Second Term (spring)	Third Term (summer)
DS1711 — 6 units Design Studio I	**DS1712 — 6 units** Design Studio II	**DS1713 — 6 units** Design Studio III
AS2711— 3 units Design Lab I	**AS2712 — 3 units** Design Lab II	**AS2713— 3 units** Design Lab III
HT2711 — 3 units Advanced Architectural Studies I	**HT2712 — 3 units** Advanced Architectural Studies II	**HT2740 — 3 units** Advanced Architectural Studies III
Elective Seminar — 3 units	**Elective Seminar — 3 units**	**Elective Seminar — 3 units**

Master of Science in Fiction and Entertainment

SCI-Arc EDGE, Fiction and Entertainment is a one-year (three-semester) postgraduate degree program leading to a Master of Science in Fiction and Entertainment.

Fiction is an extraordinary shared language through which we exchange ideas and engage with the world. The importance and power of media in the production of culture should not be underestimated. In contemporary life, new worlds are designed and experienced in movies, ad campaigns, video games, viral Internet videos, or search engines. Given the vast array of media potentially available, it is both critical and urgent for architects to widen the scope of practice beyond just buildings alone. In the Master of Science in Fiction and Entertainment program, students work with internationally-recognized professionals in the media industry to develop expertise in worldbuilding, storytelling, and production.

For nearly a century, Los Angeles has been the city where the most captivating forms of fiction and entertainment have been manufactured for the world, and will be where these forms will continue to transform and mutate for the next century. Though architects have engaged with fiction and entertainment industries in the past, the future may require a greater degree of commitment as fiction and entertainment practices in the world become more complex and engrained in our lived realities.

The Fiction and Entertainment program is focused on building new forms of architectural practice allied with the worlds of film, fiction, animation, marketing, games, and documentary filmmaking. Working with world-renowned collaborators from these disciplines and deeply embedded within the fiction and entertainment industries of Los Angeles, the program is designed to be a place to learn how to tell new kinds of stories about the emerging conditions of the twenty-first century.

Course structure

First Term (fall)	Second Term (spring)	Third Term (summer)
DS1711 — 6 units Design Studio I	**DS1712 — 6 units** Design Studio II	**DS1713 — 6 units** Design Studio III
AS2711— 3 units Design Lab I	**AS2712 — 3 units** Design Lab II	**AS2713— 3 units** Design Lab III
HT2711 — 3 units Advanced Architectural Studies I	**HT2712 — 3 units** Advanced Architectural Studies II	**HT2740 — 3 units** Advanced Architectural Studies III
Elective Seminar — 3 units	**Elective Seminar — 3 units**	**Elective Seminar — 3 units**

Master of Science in the Design of Cities

SCI-Arc EDGE, Design of Cities is a one-year (three-semester) postgraduate degree program leading to a Master of Science in the Design of Cities.

The Master of Science in Design of Cities program prompts students to investigate the full depth and drama of contemporary urban phenomena, driven by the understanding that one of the most immediate design problems of the twenty-first century is the organization and construction of cities. Most of the world's population now lives in cities, resulting in an astonishing and unprecedented process of urbanization on a global scale, the complexity of which has put into question the validity of traditional urban design concepts.

Urban design has been in the past an amorphous practice caught between the bureaucratic and policy oriented practices of urban planning and the built scales of architecture's design practices. As such, interrogations of urban design are largely underdefined and methodologies remain in constant flux. In response, the Design of Cities program seeks to clarify the ambiguous mission of urban design by foregrounding design as the primary area of focus, taking a highly experimental approach to questions of design on an urban scale and encouraging students to develop new conceptions of "the city" and its possibilities in an attempt to clarify the future of urbanized life.

This program makes a commitment to the premise that new constituencies and economies can also emerge from innovative design concepts. Against the conventional wisdom that cities are deeply complicated informal networks beyond the reach of any design model, Design of Cities fundamentally believes in the power of the architectural imagination to invent meaningful and sustainable cities for the twenty-first century and beyond.

Course Structure

First Term (fall)	Second Term (spring)	Third Term (summer)
DS1511 — 6 units Design Studio I	**DS1512 — 6 units** Design Studio II	**DS1513 — 6 units** Design Studio III
HT2611— 3 units Design Lab I	**HT2612 — 3 units** Design Lab II	**HT2613— 3 units** Design Lab III
HT2711 — 3 units Advanced Architectural Studies I	**HT2712 — 3 units** Advanced Architectural Studies II	**HT2740 — 3 units** Advanced Architectural Studies III
Elective Seminar — 3 units	**Elective Seminar — 3 units**	**Elective Seminar — 3 units**

Master of Science in Design Theory and Pedagogy

SCI-Arc EDGE, Design Theory and Pedagogy is a one-year (three-semester) postgraduate degree program leading to a Master of Science in Design Theory and Pedagogy.

The Master of Science in Design Theory and Pedagogy program prepares students for a new kind of hybrid career that has emerged in architecture: the architect-theorist-educator, which has become a progressively more important voice in design culture. Despite the importance of this new kind of architect, academia hasn't adequately addressed the problem of training talented young architects to occupy this new space and facilitate the development of these new protagonists in the design field. As the strict separation between practice and academia has begun to fade, and has now grown ambiguous due to new research models at the university and new knowledge-based forms of practice, the program addresses the question of where the next generation of architectural theorists and educators will come from. Students in this program experiment with new forms of architectural scholarship and receive hands-on teaching experience within the remarkable studio culture of SCI-Arc.

Focusing on the development of an intellectual framework that can sustain a lifelong theoretical project in architecture, Design Theory and Pedagogy students are given substantial opportunities for acquiring practical teaching experiences in how such an intellectual framework can find synergies in pedagogical practices today. The program examines the history of architectural education and its current pedagogies, and encourages the development of unconventional design research projects within advanced architectural scholarship to construct a new apparatus for the production of design theory. The program is highly competitive and requires a terminal degree in architecture for admission (B.Arch, M.Arch, or equivalent).

Course Structure

First Term (fall)	Second Term (spring)	Third Term (summer)
DS1900 — 6 units Design Studio I	**DS1912 — 6 units** Design Studio II	**DS1913 — 6 units** Design Studio III
HT2511— 3 units Design Lab I	**HT2512— 3 units** Design Lab II	**HT2513— 3 units** Design Lab III
HT2711 — 3 units Advanced Architectural Studies I	**HT2712 — 3 units** Advanced Architectural Studies II	**HT2740 — 3 units** Advanced Architectural Studies III
Elective Seminar — 3 units	**Elective Seminar — 3 units**	**Elective Seminar — 3 units**

Master of Science in Synthetic Landscapes

SCI-Arc EDGE, Synthetic Landscapes is a one-year (three-semester) postgraduate degree program leading to a Master of Science in Synthetic Landscapes.

Climate change is now an existential drama that is unfolding at a planetary scale. It may very well be the single greatest challenge of our time. For the future designers of landscapes, the importance of this event cannot be understated. In the coming years, landscape design will remain a primary arena for the development of ecological awareness and innovation.

Dependent on the contingencies of an uncertain future and necessitating action in the absence of global consensus, problems such as climate change have precipitated a shift toward more synthetic modes of inquiry in which scientific knowledge is conceived as a means not an end. In this context, design has emerged as an essential paradigm through which to imagine and plan for the future. As a field allied with both architecture and ecology, landscape offers the important opportunity to merge projective practices with scientific knowledge. To this end, the program examines how artificial and natural systems can come together to form new adaptive responses to a world in flux and pursues new forms of engagement and innovative modes of practice.

In addition to a robust theoretical framework, the curriculum incorporates the development of skills and technical knowledge integral to a landscape architecture practice today. Traditional fields of knowledge such as botany, horticulture, soil engineering, and land use policy will be studied in conjunction with new areas of expertise such as geographic information systems, data analysis, and advanced representational techniques.

Course Structure

First Term (fall)	Second Term (spring)	Third Term (summer)
DS1300 — 6 units Design Studio I	**DS1301 — 6 units** Design Studio II	**DS1302 — 6 units** Design Studio III
VS2811 — 3 units Design Lab I	**AS2812 — 3 units** Design Lab II	**AS2813 — 3 units** Design Lab III
HT2711 — 3 units Advanced Architectural Studies I	**HT2712 — 3 units** Advanced Architectural Studies II	**HT2740 — 3 units** Advanced Architectural Studies III
Elective Seminar — 3 units	**Elective Seminar — 3 units**	**Elective Seminar — 3 units**

DESIGN STUDIOS - B.ARCH

DS1010 | 1A Studio | Objects I

Studio 1A introduces contemporary architectural approaches for working rigorously and critically on formal and conceptual ideas. The course is the first studio in the coordinated five-year educational arc that culminates with Thesis. As a bookend to Thesis, the 1A curriculum emphasizes students' ability to think critically and to take a position through their work. Three projects in various media introduce students to the relationships between form, geometry, materiality and image, as well as the critical relationship between working methods and thinking. The studio takes an ambitious approach to its curricular goals; challenging students to build a robust catalogue of techniques, as well as to think laterally across various ideas and methods. Critical to the curriculum is the ability for the students to communicate through various modes of representation (images, models, writing) and to be able to discuss and contextualize their ideas given the framework of the studio.

DS1011 | 1B Studio | Objects II

Building on the conceptual thinking, aesthetic sensibilities and formal techniques students developed in the fall semester of the first year sequence, this design studio will engage the organization of the interior in relation to building mass. Notions of scale and order are considered as students work through spatial and formal investigations. The course is structured as a series of sequential projects that develop an understanding of contemporary forms of space through drawing and model. Students will consider the measurement of space and form, moving incrementally from two dimensional to three dimensional means of representation and from the scale of furniture to the scale of a building. Investigations culminate in the design of a house plus additional program components such as workspace. Emphasis is placed on developing systematic design strategies that negotiate between demands for architectural order and the engagement produced by architectural effects.

DS1020 | 2A Studio | Worlds I

The second-year undergraduate studio sequence introduces students to cultural phenomena that activate new possibilities for architectural design and discourse. The first of this sequence, 2A, looks critically at specific interior-based programs that are integral to urban environments, and are evolving due to cultural changes, i.e. the workplace. The course speculates on interior and exterior space, program organization, and new forms within existing conditions. Students emphasize workflows that move between analog (i.e. making) and digital (i.e. modeling) mediums, not only to cultivate processes of experimentation and discovery, but to also coalesce students' sensibilities with their authored intentions. Each semester, the course will put emphasis on a particular representational format (i.e. a plan, a section) to visualize, alter, reveal, and ultimately make a case for an architectural intervention, for an otherwise interior-based program. Students

articulate how the given program can be reimagined, through narratives told in the form of animated images, an analog precursor to the following semester's (2B) data-based procedures.

DS1021 | 2B Studio | Worlds II

The 2B studio will focus on the relationship between a building's interior program and complex contextual constraints. Projects will be designed around the mediating spaces and interfaces between urban exterior, public and private programmatic spaces. Projects will engage excessively detailed surveys of their site, and define methods of operation for interface between designer and data. The contemporary architect has access to massive and rich quantities of data through lidar scans, GIS, and crowd sourced content through the internet. The studio questions the ability of the designer to intelligently leverage this data as information. Each section will propose alternative models for design to exploit contextual information to rethink models of public engagement of architecture. Additionally students will be tasked with engaging more complex programs than in the previous semester, emphasizing the thresholds and adjacencies within the interior of the project.

To be taken with: Portfolio Workshop

The portfolio workshop facilitates the production of the mandatory SCI-Arc Gateway Portfolio. The portfolio documents the trajectory of each student's progress across the educational curriculum including coursework from Design Studio, Applied Studies, Visual Studies, History + Theory, and Liberal Arts. In today's various mediums of communication, an architect's portfolio may be a website, blog, monograph, social media platform or some combination of these formats. This seminar focuses primarily on the monograph model in digital and print form and considers the portfolio as a conceptual exercise in curation, organization, and presentation of a student's body of work. Students are introduced to fundamental concepts of graphic design, image editing, file organization, and techniques particular to the design of an architect's portfolio. The seminar's weekly format of review and mark-ups, combined with lectures and tutorials, instantiates the student's development in aligning their graphic sensibilities with the contents of their work to produce a cohesive and distinctive 2B portfolio.

Portfolios are submitted for review at the end of the 2B/4B studio sequence for B.Arch undergraduates. Portfolios are reviewed by the Undergraduate Portfolio Committee. The committee assesses the work documented for its capacity to give a clear sense of each individual student's progress in all the areas of their education at SCI-Arc. The portfolio may also be used for admission into special programs, exchanges, continuing scholarships, and for special petitions. Students whose work does not meet the standards of the program may be given the opportunity to resubmit a portfolio, to enable them to better articulate their knowledge and skills. If the required standard is still not met, students may be asked to repeat their studio or enroll in an independent tutorial seminar.

DS1030 | 3A Studio | Assemblies I

Building upon the pedagogy of the second year, 3A introduces students to the design problems of cellularity and repetition in an urban setting. The studio examines how architecture can mediate the relationships across three scales: an individual unit, a cluster of units, and a collection of clusters. Tasked with developing integrated proposals for a somewhat large housing complex, students are encouraged to design into existing urban conditions with an understanding of the dynamic and interdependent forces of economies, access, circulation, privacy, and infrastructure that shapes these projects and their presence in the city. Case Studies will be examined through research and travel in order to foster knowledge about how such projects are logistically resolved and integrated into their urban settings.

DS1031 | 3B Studio | Assemblies II

The 3B Studio introduces students to the comprehensive design and development of a large scale, cultural building on an urban site. Building on the pedagogy of the second year (interiority and event space) and the previous semester of the third year (housing), the studio examines the role of multiple interiors within a single, large building mass. The studio asks how the architecture of the museum, as much an accumulation of spaces as of the objects that populate them, can organize a collection of withdrawn interiors no longer connected nor related to the surrounding metropolis. From the vast to the intimate, the studio examines an idea about the museum that no longer relies on a white-box neutrality, but instead posits distinct environments and worlds that maintain architectural interest beyond their contents. Case study research of similar museum projects along with selected, critical readings form the basis for exploring the work.

DS1040 | 4A Studio | Positions

In preparation for option studios and the independent thesis project, the last studio in the core sequence asks students to develop positions within the disciplinary domain of architecture. These may include thoughts on form and materiality, domesticity and collectivity, instruments and techniques, formats and representation, and other contemporary sensibilities. Rather than starting from scratch, students develop their ideas in dialogue with another author by first closely modeling a building of their choice. They continue to make copies and deviations at another scale, on a new site, and with a different program, to gradually arrive at an independent position. In comparing the models and their corresponding images, students' choices to copy or transform, to reproduce or edit out, become perceptible, even, at times, original. The studio gives rise to a variety of opinions through live debates, round-tables, and community dialogues.

4B | 5A | Vertical Studio

Students work with select SCI-Arc faculty on specific topics in architecture, intended to expose them to a greater variety of positions within the discipline. Projects produced reflect different approaches to form, technique, material,

history, politics, the environment, and are intended to contribute real-time to contemporary discourse. Vertical Studios are chosen by students according to a lottery system (for more information on the Vertical Studio lottery, see page 34).

DS1051 | 5B | Thesis

The SCI-Arc Undergraduate Thesis is the culmination of the five year B.Arch curriculum. A focused thesis project for a highly resolved building design, both conceptually and technically, manifests the cumulative knowledge students have acquired throughout their education and acts as a point of trajectory from which to engage the discipline, field and profession at large. During the final year of the B.Arch program, students work with an advisor to develop an architectural thesis tested through the development of an architectural building project. A focus is placed on presenting and defending positions and contributing to contemporary discourse through a project that advances the highest degree possible of design and technical expertise coupled with critical thinking. Each student is expected to establish a relevant historical, theoretical, cultural, and/or technical position. The position will be tested through several modalities - written, spoken, designed, modeled, and visualized - ultimately culminating in the Final Thesis Presentations at the end of the semester.

DESIGN STUDIOS - M.ARCH 1

DS1100 | 1GA Studio | Fundamental Design Studio I

The 1GA studio introduces students to the central problems of architecture—geometry, form, and space—through the technologies of their description—diagramming, drawing, and model making. A set of exercises emphasize the role of observation, drawing and analysis as both descriptive and generative. Students pay close attention to the development of ideas that inform an iterative and creative process for working with different media, including physical models, two-dimensional drawings, and digital interfaces. The studio starts with the line as a device to enter architecture, continue to the room and conclude by designing a small civic building in an urban setting. Students develop a building proposal that negotiates inside and outside through the integration of threshold, circulation, and occupation. The final project introduces students to fundamental ways of thinking about a building: its scale, site, and program.

DS1101 | 1GB Studio | Fundamental Design Studio II

The 1GB studio expands on the fundamental problems of architectural geometry and representation developed in the 1GA studio. The form and program of a medium sized urban project is framed through the disciplinary topics of typology and poche as understood through figure ground relationships of mass and void. The interests of figure ground space and of projection situate the studio within larger discourses on the relationship of architectural form and representation with a focus on distinctions between character and type in the relation of architectural objects to each other and to a larger social and urban context. Students design a medium size building on an urban site that is developed in three phases: a research and precedent analysis of key similar projects from history; a series of exercises in constructing formal and conceptual frameworks for an architectural project; the development and representation of the building project. In addition to the pedagogical objectives, each student aims to have a big idea and for intelligible conceptual relationships between form, site, program and articulation.

To be taken with: Portfolio Workshop

The portfolio workshop facilitates the production of the mandatory SCI-Arc Gateway Portfolio. The portfolio documents the trajectory of each student's progress across the educational curriculum including coursework from Design Studio, Applied Studies, Visual Studies, and History + Theory. In today's various mediums of communication, an architect's portfolio may be a website, blog, monograph, social media platform or some combination of these formats. This seminar focuses primarily on the monograph model in digital and print form and considers the portfolio as a conceptual exercise in curation, organization, and presentation of a student's body of work. Students are introduced to fundamental concepts of graphic design, image editing, file organization, and techniques particular to the design of an architect's portfolio. The seminar's weekly format of review and mark-ups, combined with lectures and tutorials, instantiates the student's development in aligning their graphic sensibilities with the contents of their work to produce a cohesive and distinctive 1GB portfolio.

Portfolios are submitted for review at the end of the 1GB/3GA studio sequence for M.Arch 1 graduates. Portfolios are reviewed by the Undergraduate Portfolio Committee. The committee assesses the work documented for its capacity to give a clear sense of each individual student's progress in all the areas of their education at SCI-Arc. The portfolio may also be used for admission into special programs, exchanges, continuing scholarships, and for special petitions. Students whose work does not meet the standards of the program may be given the opportunity to resubmit a portfolio, to enable them to better articulate their knowledge and skills. If the required standard is still not met, students may be asked to repeat their studio or enroll in an independent tutorial seminar.

DS1120 | 2GA Studio | Comprehensive Design Studio

The first term in the second year of the core M.Arch I sequence builds upon an appreciation of the discipline and knowledge of architectural production by focusing on the development of a project according to principles of Integrative Design. The studio is structured to support each student's awareness of the issues involved in the design of a complex architectural project. Elemental spatial constructs and organizational systems are seen as resulting from and reacting to site conditions, program distribution, structural systems, building envelope systems and assemblies, environmental factors, and building regulations. These influences are considered at once physical and virtual, permanent and ephemeral, situational and circumstantial. Qualities of site, situation, and environment,

as well as cultural contexts, are considered potential tools to challenge conventional approaches to architectural design.

DS1121 | 2GB Studio | Architecture and Urban Design Studio
This studio examines the relationship between architecture and the metropolis, deepening students' understanding of the ways in which buildings can both contribute to, and be informed by, the existing city and its skyline. Through an in-depth study of campus plans and their formal and infrastructural organizations, students learn how very large building blocks can behave like social condensers, or very small cities. The studio will develop a proposal for a mid-size building in an urban setting. Students will consider local conditions, such as urban planning, local ecology, contemporary politics, and car, metro, and pedestrian infrastructure, that all shape this urban site.

3GA | 3GB | Vertical studio
Students work with select SCI-Arc faculty on specific topics in architecture, intended to expose them to a greater variety of positions within the discipline. Projects produced reflect different approaches to form, technique, material, history, politics, the environment, and are intended to contribute real-time to contemporary discourse. Vertical Studios are chosen by students according to a lottery system (for more information on the Vertical Studio lottery, see page 34).

DESIGN STUDIOS - M.ARCH 2

DS1200 | 2GAX studio | Computational Design Studio I
The discipline of architecture is in the process of being actively redefined by shifting political, social, technological, and ecological paradigms. In the 2GAX studio students explore the forefront of the discipline, leading the conversation about the next in terms of aesthetic agendas, architecture's contemporary and future societal role, and the impact of theoretical and technological innovation on architecture's design and communicative repertoire. The Compositional Morphologies studio places an emphasis on advancing formal strategies beyond the current state-of-the-art. Students integrate extra-disciplinary techniques and technologies into the design workflow in order to develop innovative architectures that respond to changing societal, ecological and technological contexts. Students' design work engages issues that range from fundamental morphological transformations through rigorous 3D modeling, to the role of the image and digital sampling in the production of architectural form.

DS1201 | 2GBX studio | Computational Design Studio II
2GBX DS is the second core studio of the M.Arch2 sequence. If 2GAX focuses on the acquisition of new digital representational tools and new formal palettes, 2GBX combines this newly acquired skill set with the architectural background that M.Arch 2 students already have from their undergraduate degrees. The studio provides a platform to research in-depth architectural disciplinary work done on a specific building typology. Traditionally the studio focuses on novel formal experimentation and critical thinking, while maintaining a comprehensive understanding of all the basic formal, programmatic, organizational and environmental principles that are at the core of any architectural design. Students are asked to approach the project comprehensively and consider, along with the theoretical and creative aspects, the pragmatic aspects that influence the decision making of a project.

To be taken with: Portfolio Workshop
The portfolio workshop facilitates the production of the mandatory SCI-Arc Gateway Portfolio. The portfolio documents the trajectory of each student's progress across the educational curriculum including coursework from Design Studio, Applied Studies, Visual Studies, and History + Theory. In today's various mediums of communication, an architect's portfolio may be a website, blog, monograph, social media platform or some combination of these formats. This seminar focuses primarily on the monograph model in digital and print form and considers the portfolio as a conceptual exercise in curation, organization, and presentation of a student's body of work. Students are introduced to fundamental concepts of graphic design, image editing, file organization, and techniques particular to the design of an architect's portfolio. The seminar's weekly format of review and mark-ups, combined with lectures and tutorials, instantiates the student's development in aligning their graphic sensibilities with the contents of their work to produce a cohesive and distinctive 2GB portfolio.

Portfolios are submitted for review at the end of the 2GBX/3GAX studio sequence for M.Arch 2 graduates. Portfolios are reviewed by the Undergraduate Portfolio Committee. The committee assesses the work documented for its capacity to give a clear sense of each individual student's progress in all the areas of their education at SCI-Arc. The portfolio may also be used for admission into special programs, exchanges, continuing scholarships, and for special petitions. Students whose work does not meet the standards of the program may be given the opportunity to resubmit a portfolio, to enable them to better articulate their knowledge and skills. If the required standard is still not met, students may be asked to repeat their studio or enroll in an independent tutorial seminar.

3GAX | 3GBX | Vertical studio
Students work with select SCI-Arc faculty on specific topics in architecture, intended to expose them to a greater variety of positions within the discipline. Projects produced reflect different approaches to form, technique, material, history, politics, the environment, and are intended to contribute real-time to contemporary discourse. Vertical Studios are chosen by students according to a lottery system (for more information on the Vertical Studio lottery, see page 34).

DESIGN STUDIO - ALL GRADUATE PROGRAMS

DS1420 | Graduate Thesis

Since its founding, SCI-Arc has maintained a proud tradition of graduate design theses. In addition to a consistent stewardship of the thesis within the architectural discipline, SCI-Arc has been dedicated to the empowerment of individual design vision on the global stage. The graduate thesis program at SCI-Arc represents a culmination of the graduate curriculum and a significant test of the students' ability to synthesize and produce critical and rigorous architecture.

For M.Arch 1 students, preparation for the thesis begins at the end of the first year when they submit portfolios of their work to a graduate review committee, who review their strategies of representation and ability to communicate effectively. Prior to entering the Thesis Research class, all graduate students submit their portfolios, which provide immediate feedback on their particular design vision and serve as a solid foundation for the development and direction of each individual student. In thesis prep, students work in small, topical workgroups, led by a thesis advisor, to prepare their argument and the research and materials necessary for an intelligent thesis.

Upon successful completion of thesis prep, students are encouraged to strengthen their thesis arguments through the selection of a thesis advisor of their choice with whom they will work independently on their design thesis. During the thesis term, students undergo a series of public reviews, with their advisor present, to evaluate progress and develop their projects in the light of the collective intellect of the reviewing body.

The SCI-Arc graduate thesis program culminates in a public three-day event in which students present their thesis projects to critics from all over the world. A celebration of academic achievement, the SCI-Arc thesis weekend is widely regarded as a major forum for the discussion of fresh insights and innovative concepts among noted theoreticians and practicing architects. Jury panels comprising members of the international, national and local design community, along with SCI-Arc faculty members, discuss and critique the work in hour-long panel sessions. Following a question and answer period, the discussion opens to the attending audience members, other SCI-Arc faculty, students and community members.

DESIGN STUDIOS - EDGE ARCHITECTURAL TECHNOLOGIES

DS1711 | AT Design Studio I

The initial studio of the Architectural Technologies program introduces students to advanced topics in architectural technologies with a focus on artificial intelligence and automation. Students develop a semester-long design project applying newly acquired technical knowledge.

DS1712 | AT Design Studio II

In the second semester of the program, students begin the development of their degree project that will be completed in the third semester. Students are asked to consider what might be new consequences for design culture relative to emerging technologies.

DS1713 | AT Design Studio III

The final design studio of the program completes the degree project initiated during the second semester. Students are asked to consider the larger implications of their research for new forms of platform-based design practice in the contemporary world.

FICTION AND ENTERTAINMENT

DS1800 | FE Design Studio I

The introductory studio of the Fiction and Entertainment program introduces students to conceptual problems of how fiction operates in contemporary life. Critically examining the effects of technology on culture and society today, students develop a semester-long project authoring a short film exploring theoretical topics.

DS1812 | FE Design Studio II

Building on the basic skills developed in the introductory design studio, students develop a more ambitious narrative structure for their ongoing short film projects. Students are introduced to methods of acquiring on-location footage.

DS1813 | FE Design Studio III

The final design studio of the program develops final versions of the projects. The studio concludes with a public screening of the students' authored short films.

DESIGN OF CITIES

DS1511 | DC Design Studio I

The introductory studio of the Design of Cities program introduces students to contemporary discourses in urban form from a global perspective. With a focus on historical problematics of urban ground and property rights, students develop speculative urban projects in relationship to urban grids and infrastructure.

DS1512 | DC Design Studio II

In the second semester of the program, students continue their development of design strategies for the twenty-first century city with a focus on the complex political and financial logics of contemporary urban conditions.

DS1513 | DC Design Studio III

The final design studio of the program develops a comprehensive design project following the premises developed during the previous semesters. Students develop speculative design projects incorporating the experimental urban strategies of the program.

DESIGN THEORY AND PEDAGOGY

DS1900 | DTP Design Studio I

The introductory studio of the Design Theory and Pedagogy program focuses on the concept of the core curriculum. Two of the three studio days each week uses SCI-Arc as a live teaching laboratory, integrating the students into the teaching practices of the core curriculum in SCI-Arc's undergraduate program. The third studio day of each week is spent in discussion with the studio instructor, evaluating pedagogical observations. This introductory design studio develops new core studio exercises as a semester-long project.

DS1912 | DTP Design Studio II

Building on the study of the core curriculum, students in the second design studio examine the pedagogies of advanced studios. Two of the three studio days each week uses SCI-Arc as a live teaching laboratory, integrating the students into the teaching practices of SCI-Arc's advanced studios (Vertical Studios). The third studio day of each week is spent in discussion with the studio instructor, evaluating pedagogical observations. This intermediate design studio develops a syllabus and brief for an advanced studio as a semester-long project.

DS1913 | DTP Design Studio III

The concluding design studio of the program asks students to develop design projects following their advanced studio briefs from the spring semester design studio. With a focus on critically examining the theoretical merits and practical problems of their advanced studio syllabi, students develop first-hand experience in the possible outcomes of their pedagogies.

SYNTHETIC LANDSCAPES

DS1300 | SL Design Studio I

The initial studio of the program focuses on the technical image and its implications for landscape as a mediated experience. Games engines, real time rendering, and methods of incorporating artificial intelligence are incorporated into workflows to develop new projects of landscape design in an era of virtualization and remote viewing. Emphasized is a critical examination of the historical and philosophical underpinnings of the word "nature" and how new ecological concepts emerging from this critique might develop into new aesthetic practices.

DS1301 | SL Design Studio II

The studio transitions from the subjective and cultural topics of Design Studio I toward the objective and managerial practices of data collection and analysis in contemporary models of geospatial description. Examining how geographic information systems (GIS) have transformed our understanding of spatial and temporal phenomena, projects in the studio seek to leverage new technologies of simulated orthography for speculative design scenarios.

DS1302 | SL Design Studio III

The final studio of the Synthetic Landscapes studio sequence asks students to develop a terminal project that bridges between the topics of the first two studios. Projects seek to demonstrate a productive relationship between the cultural and representational strategies introduced the first semester with the novel managerial and information models developed in the second.

VERTICAL STUDIOS

SCI-Arc's upper-level studios bring students into contact with renowned architects from all over the world whose work has placed them firmly at the forefront of the discipline. Visiting instructors have included Frank Gehry, Lise-Anne Couture, Jesse Reiser, Peter Cook, Peter Trummer, Sulan Kolatan, Brendan MacFarlane, Michele Saee, Michael Malzan, Wolf D. Prix, and Thom Mayne, among others. Students from both undergraduate and graduate programs who have completed their core sequence work together in groups of fifteen or fewer.

Vertical Studio Procedure

Vertical Studios are open to upper-division students from the undergraduate and graduate programs—students in 4B, 5A, 3GA, and 3GB—and exchange students. Acceptance into a Vertical Studio is based on completion of core studio and seminar prerequisites. Students with an academic or financial hold will not be allowed to participate in the Vertical Studio Lottery or enroll in a Vertical Studio until hold has been cleared. Placement in Vertical Studios is final and dependant upon the Vertical Studio Lottery and/or portfolio review.

Eligible students will participate in the Vertical Studio Lottery held during the first week of each term. Following presentations by the Vertical Studio instructors, eligible students complete an online ballot ranking all offered studios in order of preference. A digital lottery system is used to sort students into individual Vertical Studios based on ballot rankings and overall student GPA (or portfolio review in the case of traveling studios). Students who fail to submit a Vertical Studio Lottery ballot by the deadline will not be allowed to participate in the Lottery and will be assigned to a Vertical Studio with available seats.

Please note that these courses are not offered every semester and are subject to change. Check the latest course schedule for current course offerings, and visit my.sciarc.edu for each semester's course descriptions.

Vertical studios offered in past semesters include:

An uh log y Dig et. al.
Devyn Weiser

One of the most important museums in Paris, Centre Pompidou, will soon be expanding its reach in France with plans to open a gargantuan space in the city's suburbs in 2025. The new "Art Factory" will serve as the studio project with 22,000 square-meter spaces for exhibition, conservation, and dissemination to the public of one of the largest collections of modern and contemporary art in the world. The program includes 2,500 square-meter facility for live performances, conferences, screenings, and workshops; warehouses; and art houses for artists in residence. The studio takes advantage of the online format with guest lecturers and curators loosely organized around two related conversations. The first topic "The Exhibitionary Complex" frames project narratives on museological and curatorial practices, digitization of collections, constitution of archives, and the limits of care and knowledge in cultural institutions. The second topic, "The Interface Effect" situates the computable and the uncomputable and includes webinars by Media Theorist Alexander Galloway on "The Physical and the Digital". Discourse and techniques developed in the studio have application to thesis and emerging models of practice.

onWeaving
Florencia Pita

In 1919 weaving was an 'appropriate' discipline for women, at least that was the thinking at the then emerging Bauhaus School. As an entering student Anni Albers reluctantly joined the weaving workshop to later embrace the experimental nature of the craft. "Women were segregated and given their own workshop, the Weaving Workshop, regardless of talent or inclination," yet for these woman weaving was not just decoration (such as embroidery, etc), weaving had intrinsic structural constructs, it necessitated notation in order to play out a myriad of alternative patterns and variations, an endless field of possibilities. This is what Anni Albers has argued in her book 'On Weaving' first published in 1965, were she articulates the case for a discipline that spans thought time, thought history and though countless cultures, from Greece to Peru, from analog to technological, we find the loom inextricably attached to humanity. 'During the 4,500 years, in some estimates, even 8,000 years that we believe mankind has been weaving' , as an inherent material of our culture, textiles can always be re-defined. This is the foundation of this studio, to look at weaving without any preconceptions, and embrace it for its design potentials and the challenge it forges onto the discipline of architecture.

Role Play
Elena Manferdini

The studio is about architectural identity in the digital age. After a global transition of our sense of self into the digital realm and the rush towards an emerging Metaverse, architects are asked to redefine our existence in real and virtual environments. The studio will question who we are today, what we look at, how we interact and the possibility of being re-imagined, while speculating on what happens to architecture because of these digital alternatives. Students will design their own digital identity using Artificial Intelligence and will then transfer what they have learned to the scale of a 100,000 sqf architectural space in Milan Italy, combining the material with the immaterial.

Slow Take
Mira Henry

This studio, Slow Take, engages in a methodology of seeing a place slowly and understanding architecture as a time based medium – bringing materials and people together in time and over time. From this perspective, the studio focuses on tectonics (the build-up and attachment of material systems), on notions of atmosphere (movement of air, sounds, and qualities of light), and on the social (patterns and rituals around people gathering). We will focus on the design of an open-air performance space located in the Leimert Park neighborhood in South Central Los Angeles. While the area is rapidly gentrifying, Leimert Park remains the center of radical Black creativity. Urban development plans for public space in the area are an ongoing disputed topic, a political reality we will be discussing throughout the semester. The studio is grounded in a respect for context as a full and alive condition, and explores a set of embodied design strategies that privilege material reality, flexibility, and ambient pleasure.

The Architecture of Activism
Gordon Kipping

The performance of architecture is the crafting of space with intentionality. Architecture produces constructed objects and spaces which choreograph our interactions with our environments and one another. Architecture can play an activist role in combating social, economic, political and environmental disorders but it has been mostly spared from the conversation and action. The Architecture of Activism studio aims to address this absence with the design and construction of architectural interventions to effectively mediate the interaction between an activism movement and the territory within which it operates.

APPLIED STUDIES

Architecture is about the way we make worlds, populated with subjects and objects, the definitions of which are always mediated by their cultural significance. Embedded in the act of "making" as the transposition and materialization of abstract ideas into spatial form, is the conception of technology as the necessary

means by which that complex process takes place. The continuous definition and challenge of the multiple ways we make the world and its physical environment constitute the fundamental motivation of the Applied Studies program at SCI-Arc. The program offers a range of courses that critically engage technology and its spatial and social consequences. Foundation courses are offered in Physics and other sciences, building systems, structural analysis, tectonics, material development, acoustics, lighting, and environmental control. Advanced courses explore the design consequences of the continued material and technical development of architectural proposals in the physical world. Elective courses offer the unique opportunity to further research and experiment with highly specific technologies that constantly redefine the conventions of architecture as a discipline and as a practice. Recent courses explore topics as diverse as parametric design, structural optimization, advanced geometry, composite tectonics, material research and development, complex assemblies, and advanced robotics, as well as ecology, biomimicry, solar performance, augmented reality (AR), and Artificial intelligence (AI).

Core Applied Studies seminars
Undergraduate

AS3020 | Environmental Systems I
The seminar is an introduction to environmental systems. The course considers the role that buildings play in the built environment as it relates to the usage of land, material, energy, and water. Students will then explore passive and active design techniques that can be implemented to make buildings operate efficiently within a geographic location. With skill and intent, buildings can be designed to be healthy and effective while also reducing resource consumption and waste. The course will analyze the design and construction process and establish tools for project architects to make decisions on site impact, material selection, operational effectiveness, and integration of systems. The course will review sustainable rating schemes that attempt to inspire, regulate or standardize current and future designs. Examples covered within this course will include: LEED (Leadership in Energy and Environmental Design), Architecture 2030 Challenge (Carbon neutrality), UN Sustainability Design Guidelines, and Net Zero and Regenerative targets. During the semester, students will be exposed to theoretical principles explained through lectures, case studies, and field trips. Project research will enable students to apply techniques to their designs.

AS3021 | Structures I
Taking a broad view of structural systems and materials, this course introduces students to the fundamental principles governing structure such as equilibrium, span, stiffness, and load path. The course looks at common building materials - wood, steel, concrete – and their mechanical properties to understand how and when to apply these materials in construction. Through in-class examples

and discussions, and homework assignments that include exercises in shear and bending moment diagrams and the calculation of equilibrium and internal forces, students develop a practical understanding of structural systems and how these systems are deployed in building construction.

AS3030 | Structures II
This course aims to provide students with a comprehensive understanding of structural engineering and of the architect's role in the creative application of engineering principles. During the first part of the term, the class examines concepts and definitions of gravity framing systems. The latter half of the course introduces lateral loads and the structural systems used to resist those loads. The class introduces students to building code requirements pertaining to lateral load definition and lateral load-resisting systems.

AS3031 | Environmental Systems II
This course focuses on advanced building systems and technologies with a special emphasis on environmental systems, sustainability, performative architecture, and integration of building systems. The content includes passive, active and generative building environmental systems and design strategies and their integration and optimization with the building site, orientation, and envelope/façade, in relation to renewable natural resources and occupant needs. The seminar also covers building systems and services such as plumbing, electrical, fire protection, acoustics, vertical transportation, security and building management systems; focusing on architectural considerations and overall systems integration. Through a series of lectures, software tutorials, assignments, student presentations, quizzes and exams, advanced systems, design strategies and architectural precedents will be explored and critically analyzed using various qualitative and quantitative techniques including benchmarks/rule-of-thumbs, prescriptive (building codes and standards), and dynamic building performance simulations.

AS3033 | Tectonics
This seminar introduces the fundamentals of building systems with a focus on the tectonics and performance of the building envelope. Working through precedent analysis students document the established and emerging technical, environmental, and cultural dimensions of a building facade, formulating hypotheses about the interrelationship between envelope systems, materials and supporting structure. Students will activate their research through a detail transformation of a precedent, making design decisions that respond to the concerns of the envelope including building performance, aesthetics, effects and materiality.

AS3040 | Design Development
This course investigates issues related to the implementation of design: technology, the use of materials, systems integration, and the archetypal analytical strategies of force, order and character. The course includes a review of basic and advanced construction methods, analysis of building codes, the design

of Structural and Mechanical systems, Environmental systems, Buildings service systems, the development of building materials and the integration of building components and systems. The intent of this course is to develop a cohesive understanding of how architects communicate complex building systems for the built environment and to demonstrate the ability to document a comprehensive architectural project and Stewardship of the Environment. A series of built case studies will be presented by the instructors along with visiting professionals in the field who are exploring new project delivery methods. These case studies will be shown in-depth with construction photographs, 3D renderings, and technical drawings and details. Pertinent specific topics for the course will be highlighted in each presentation, with a focus on the evolution of building design from concept to build form.

AS3041 | Advanced Construction and Project Delivery (Construction Documents)*

* No longer required for students entering the 2018-19 Academic Year or after.

The course focuses on advanced methods of project delivery and construction documents incorporating digital technologies and investigating new models for linking design and construction processes. It introduces Building Information Modeling as one of the tools for realignment of the traditional relationships between the project stakeholders. By designing and simultaneously documenting a medium size mixed-use building, located in Los Angeles, students will develop the architecture by creating a detailed 3D digital model and a set of 2D construction documents specifically tailored for the challenges of this project. Lectures on advanced project delivery of actual innovative buildings will further inform students of technical documentation methods for projects that are operating on the forefront of design and construction technologies to date.

AS3050 | Professional Practice

Architecture is a comprehensive field of practice existing within dynamic, social, organizational, economic, professional and cognitive contexts. The course aims to equip the student with knowledge, skill, and judgment needed to fit an architect for his/her professional duties, and to understand how an office organization and a design project are managed for this purpose. Topics include human factors, planning, scheduling, cost control, risk management, design and construction management and developments in information technology for project management and documentation will be discussed. Topics covered will include such questions as how clients select architects; how architects find commissions; how projects get publicized and published; how to obtain and maintain your licensure, keys to selecting and working with collaborators; engineers, consultants, and contractors. How to start your own practice; working with owners, contractors and developers. Students can expect to learn the skills needed to make design, management, and technology decisions in the building of their own practices and in the roles as project architects.

M.Arch 1

AS3100 | Materials and Tectonics

This class introduces students to fundamental structural principles with a strong emphasis on materials, material properties and industrial processes. This course is an investigation into the anatomy of material and its potential use in architecture. The goal of the class is to provide students with a thorough understanding of materials, and of the design methods, techniques, and industrial processes by which they acquire meaning in an architectural and building context. By means of direct testing and experimentation, the class explores technical and rational manipulations of traditional as well as novel materials, aiming to develop an expansive understanding of their physical nature, environmental impact and possible reuse.

AS3101 | Structures I

Beginning with a broad understanding of the ways in which materials work at the molecular level, this course introduces students to principles governing structure such as force and unit stress, equilibrium and span, stiffness, and the reasons materials change shape when subjected to loads. Through a number of assignments which include exercises in shear and bending moment diagrams and the calculation of equilibrium and internal forces in trusses, students are provided with a practical basis for understanding structures and their behavior**.**

AS3120 | Structures II

This course aims to provide students with a comprehensive understanding of structural engineering and of the architect's role in the creative application of engineering principles. During the first part of the term, the class examines concepts and definitions of gravity framing systems. The latter half of the course introduces lateral loads and the structural systems used to resist those loads. The class introduces students to building code requirements pertaining to lateral load definition and lateral load-resisting systems.

AS3122 | Design Development and Documentation

This course investigates issues related to the implementation of design: technology, the use of materials, systems integration, and the archetypal analytical strategies of force, order and character. The course includes a review of basic and advanced construction methods, analysis of building codes, the design of Structural and Mechanical systems, Environmental systems, Buildings service systems, the development of building materials and the integration of building components and systems. The intent of this course is to develop a cohesive understanding of how architects communicate complex building systems for the built environment and to demonstrate the ability to document a comprehensive architectural project and Stewardship of the Environment. A series of built case studies will be presented by the instructors along with visiting professionals in the field who are exploring new project delivery methods. These case studies will be shown in-depth with construction photographs, 3D renderings, and technical drawings and details. Pertinent specific topics for the course will be highlighted

in each presentation, with a focus on the evolution of building design from concept to build form.

AS3124 | Environmental Systems

The seminar is an introduction to environmental systems. The course considers the role that buildings play in the built environment as it relates to the usage of land, material, energy, and water. Students will then explore passive and active design techniques that can be implemented to make buildings operate efficiently within a geographic location. With skill and intent, buildings can be designed to be healthy and effective while also reducing resource consumption and waste. The course will analyze the design and construction process and establish tools for project architects to make decisions on site impact, material selection, operational effectiveness, and integration of systems. The course will review sustainable rating schemes that attempt to inspire, regulate or standardize current and future designs. Examples covered within this course will include: LEED (Leadership in Energy and Environmental Design), Architecture 2030 Challenge (Carbon neutrality), UN Sustainability Design Guidelines, and Net Zero and Regenerative targets. During the semester, students will be exposed to theoretical principles explained through lectures, case studies, and field trips. Project research will enable students to apply techniques to their designs.

AS3130 | Practice Environments: Contracts, Liabilities and Business Models

This course critically examines the role of professional architectural practices in the development and direction of architectural design, production, and pedagogy. As its basis, the course comprises a survey of the architectural profession—its licensing and legal requirements, its adherence to the constraints of codes and budgets, and its place among competing professions and financial interests. Attention is placed on student's understanding of registration law, building codes and regulations, professional service contracts, zoning and sub-division ordinances, environmental regulations, and other licensure concerns. Students gain an understanding of the architect's administrative role and of issues relating to obtaining commissions, selecting and coordinating consultants, negotiating contracts, providing project management, and overseeing issues of egress, code compliance, and principles of life safety. They also develop the skills necessary to effectively communicate to clients and user groups. Trends such as globalization and outsourcing are analyzed in their capacity to substantially affect the practice of an architect. Students also receive the Emerging Professional's Companion along with updated Intern Development Program (IDP) information.

AS3140 | Advanced Project Delivery

The course focuses on advanced methods of project delivery and construction documents incorporating digital technologies and investigating new models for linking design and construction processes. It introduces Building Information Modeling as one of the tools for realignment of the traditional relationships between the project stakeholders. By designing and simultaneously documenting a medium size mixed-use building, located in Los Angeles, students will develop the architecture by creating a detailed 3D digital model and a set of 2D construction documents specifically tailored for the challenges of this project. Lectures on advanced project delivery of actual innovative buildings will further inform students of technical documentation methods for projects that are operating on the forefront of design and construction technologies to date.

M.Arch 2

AS3200 | Advanced Materials and Tectonics

Run concomitantly to Studio, and as its technical companion, this course focuses on tectonics (predominantly of the building envelope) and performance, (largely consisting of technical, technological, cultural, and environmental dimensions). Working in groups throughout the semester, students will analyze and document a housing precedent in order to formulate a series of hypotheses that support interrelated tectonic conjectures dealing with the façade system and its supporting structures. In scrutinizing the envelope assemblies, the class will develop knowledge of the tectonic that establish both the technical basis of the envelope and an understanding of the materiality of the façade including a critical awareness of embedded cultural habits. With this knowledge, each team will develop a chunk of their Studio project to a level that not only details its construction – materials, methods, sequences, tolerances, etc. – but also embraces architectural processes of expression, encompassing issues of geometry and technique; posture and character.

AS3201 | Advanced Building Systems

This course focuses on advanced building systems and technologies with a special emphasis on environmental systems, sustainability, performative architecture, and integration of building systems. The content includes passive, active and generative building environmental systems and design strategies and their integration and optimization with the building site, orientation, and envelope/façade, in relation to renewable natural resources and occupant needs. The seminar also covers building systems and services such as plumbing, electrical, fire protection, acoustics, vertical transportation, security and building management systems; focusing on architectural considerations and overall systems integration. Through a series of lectures, software tutorials, assignments, student presentations, quizzes and exams, advanced systems, design strategies and architectural precedents will be explored and critically analyzed using various qualitative and quantitative techniques including benchmarks/rule-of-thumbs, prescriptive (building codes and standards), and dynamic building performance simulations.

AS3222 | Design Development and Documentation

This course investigates issues related to the implementation of design: technology, the use of materials, systems integration, and the archetypal analytical

strategies of force, order and character. The course includes a review of basic and advanced construction methods, analysis of building codes, the design of Structural and Mechanical systems, Environmental systems, Buildings service systems, the development of building materials and the integration of building components and systems. The intent of this course is to develop a cohesive understanding of how architects communicate complex building systems for the built environment and to demonstrate the ability to document a comprehensive architectural project and Stewardship of the Environment. A series of built case studies will be presented by the instructors along with visiting professionals in the field who are exploring new project delivery methods. These case studies will be shown in-depth with construction photographs, 3D renderings, and technical drawings and details. Pertinent specific topics for the course will be highlighted in each presentation, with a focus on the evolution of building design from concept to build form.

AS3230 | Practice Environments: Contracts, Liabilities and Business Models

This course examines critically the role of professional architectural practices in the development and direction of architectural design, production and pedagogy. As its basis, the course comprises a survey of the architectural profession—its licensing and legal requirements, its adherence to the constraints of codes and budgets, and its place among competing professions and financial interests. Attention is place on student's understanding of registration law, building codes and regulations, professional service contracts, zoning and sub-division ordnances, environmental regulations and other licensure concerns. Students gain an understanding of the architect's administrative role, and of issues relating to obtaining commissions, selecting and coordinating consultants, negotiating contracts, project management and issues of egress, code compliance and principles of life safety. They also develop the skills necessary to effectively communicate to clients and user groups. Trends such as globalization and outsourcing are analyzed in their capacity to substantially affect the practice of an architect. Students also receive the Emerging Professionals Companion along with updated IDP information.

AS3302 | Advanced Structural Systems

This course expands on topics of structural engineering principles and systems and will examine how architectural forms can be derived from structural systems and vice versa. Structural systems including long-span trusses, arches, vaults, membranes, shells, tension structures, space frames, folded plates, diagrids, pneumatics, and cable nets will be studied through evaluations of built projects and class assignments. Different structural materials will be examined with an emphasis on making appropriate material choices for structural performance, methods of construction, and environmental impacts. The course also expands on lateral loads and the structural systems used to resist those loads.

EDGE

AS2711 | Design Lab I (Architectural Technologies)

The initial design lab supports the design studio with technical skills required for engaging emerging technologies. Students develop workflows incorporating basic coding skills, real-time rendering with game engines, and new exchanges with material conditions through augmented reality technologies.

AS2712 | Design Lab II (Architectural Technologies)

The second design lab is structured as an open forum for supporting the individual student projects being developed in the design studio. Various experts in the field are invited to advise students on both technical and conceptual problems relevant to the ongoing development of their projects.

AS2713 | Design Lab III (Architectural Technologies)

The final design lab is structured as an open forum for supporting the completion of individual student projects developed in the design studio sequence. Various experts in the field are invited to discuss the larger implications of the student projects and advise on strategies of individual development after graduation.

AS2812 | Design Lab II (Synthetic Landscapes)

The second design lab focuses on advanced orthographic techniques and GIS technologies. Students develop experimental workflows for integrating data with their individual field research. Students are asked to articulate positions relative to the problematic relationship between fact and data in contemporary society.

AS2813 | Design Lab III (Synthetic Landscapes)

The final design lab supports the terminal studio project through a focus on advanced presentation techniques and technologies of collaboration and communication. The course emphasizes how designers might engage ecological discourse through the decentralized media culture of the twenty-first century.

Recurring Applied Studies Electives

Please note that these courses are not offered every semester and are subject to change. Check the latest course schedule for current course offerings, and visit my.sciarc.edu for each semester's course descriptions.

AS2509 | Details, Details
Dwayne Oyler

This course is an investigation into the future of the architectural detail. Beginning with the question, "what is an architectural detail today?", the course considers a range of critical positions on the issue and tests their outcome through the design and fabrication of an architectural detail. A number of architects, from Ben Van Berkel to Zaha Hadid and Rem Koolhaus have suggested that the relevance of the architectural detail has faded in favor of more subservient part

to whole relationships. There is no denying that, given the simultaneous technological advancement and material development of our era, the idea of seamless continuities are on the horizon (if not at our fingertips) at least from the standpoint of constructability. But, is that really the best we can do? Or might the future of the architectural detail belong to a more nuanced approach that draws from a wider range of definitions? Based on the five architectural detail definitions outlined by Edward Ford in his book The Architectural Detail, each student will be asked to position themselves relative to the 5 categories - or to place themselves between more than one of them. Drawings from that position, students are then asked to design (and construct at half or full scale) an architectural detail.

AS2731 | Giant Robot + 3D Disco Diffusion = Furniture
Casey Rehm

Text based image generation AI like Midjourney and Dall-e are transforming our understanding creative workflows, expertise, labor, and aesthetic exploration. In this seminar we will develop and deploy a stack of 2D and 3D neural networks to produce custom furniture from a text prompt. Students will utilize custom scripts for translating these forms into low-poly components for fast wire-cutting of lightweight foam on the new large robot, and detailed 6-axis sculpting with detailed cutters to automate the production of the furniture.

AS2439 |1.5 °C - Architecture Against Climate Change
Herwig Baumgartner

Recent estimates hold the construction and building industries responsible for nearly 38% of the global energy-related emissions currently fueling catastrophic changes to our climate. In the wake of this fact, the global impact of what we design and how we build has become the center of Architectural discussion. 1.5°C will explore this topic by investigating the potential of design, technology, and new materiality in Architecture as a means of aiding the global fight against environmental warming and accelerating climate change. This course will evaluate design at the confluence of sustainable materials (ceramic, low-carbon, etc) and robotics with emphasis on emerging fabrication techniques, synthetic ecology, and net zero Architecture.

The ambition of this seminar is for students to conceptualize, digitally simulate, and then prototype a synthetic habitat designed to withstand extreme climate conditions using net-zero construction. Designs will explore novel concepts of sustainability in Architecture through ceramic-based material research and the development of a unique and highly controlled robotic fabrication process designed to suite the conceptual and aesthetic agenda of each project. Fabrication will necessitate the use of a Staubli robotic arm, ceramics, and multiple digital techniques to produce a geometrically complex, high resolution prototype of the designed project.

AS2770 | Steel Odyssey

Soomeen Hahm

This seminar focuses on specific fabrication techniques using Augmented Reality (AR). Aiming to produce a 1:1 scaled complex geometry as well as developing a mobile/Hololens app to assist this production. Inheriting the knowledge from the SteamPunk pavilion and the Steam Odyssey installation project. In this seminar, students will learn how to build a steel structure using Augmented Reality fabrication techniques. Students will be designing furniture/architectural elements using generative design methodology. One selected scheme per team will be built into a 1:1 scale prototype using steel rods and bars. Steel bending machines, metal shops, welding machines will be the relevant fabrication tools. The Hololens will be used as the main AR device together with Unity which as the platform to develop custom AR applications as well as Rhino and Fologram deployed for AR construction.

AS2583 | CATIA Engines of Creation
Kerenza Harris

This seminar looks at a particular design process that deals with systematized complex form making. This process is used by architecture firms like Morphosis and Zaha Hadid Architects among others. CATIA is the central software that drives the design, optimization and documentation of this unique approach to the making of architecture. This seminar focuses on the use of CATIA as ideas generator and as a tool capable of creating intelligent digital constructs, containing evolving geometrical relationships that ultimately lead to the emergence of behavioral patterns. With advanced computational tools like CATIA, the traditional design workflow is shifting towards a new methodology, leveraging technology in an innovative way and generating new ways of thinking about architecture.

Applied studies masterclasses and workshops are offered once or twice a semester to upper-level students. Please visit my.sciarc.edu for more information regarding applied studies masterclasses and workshops.

HISTORY + THEORY

The History + Theory curriculum at SCI-Arc provides a rigorous immersion into the history, theory, and criticism of architecture to equip students with the skills necessary to become leaders in the production of architectural discourse within a global context. With today's proliferation of aesthetic agendas and technical virtuosities comes a distinct need for new modes of discourse through which design innovations may be translated into significant contributions to cultural production. The History + Theory curriculum conceives of design innovation and conceptual intellection as intimately intertwined and equally subject to formal analysis and manipulation. In other words, at SCI-Arc, we do not merely theorize or criticize design, we design the discourse. This stance obliges us to remain attentive to conventional modes of inquiry as we open up other rhetorical avenues along which to advance nascent disciplinary trajectories. In addition to a focus

on history, theory, and criticism of architecture, History + Theory courses direct attention to themes such as the rhetoric of virtuosity, the construction of audiences, the modulation of attention, to discourses of the beautiful, the grotesque, the awkward, the counterintuitive, and other contemporary themes. The curriculum also addresses fundamental questions of disciplinarity, the continued relevance of lingering critical vocabularies and techniques, and the intersection of architectural discourse with philosophy, art history, literature, music, popular culture, and other modes of cultural production.

Core History + Theory Seminars
Undergraduate

HT2012 | History of Architecture and Urbanism I
This course is an introduction to the history of architecture and urbanism and a preparation for informed participation in the field. The focus will be on significant considerations in the field across history: issues of origins, visual regimes, massing, interior, ground, apertures, and articulation. The organizing principle of this class is thematic rather than chronological. Students will explore architectural history synoptically rather than merely factually, and selectively via case studies as opposed to comprehensively: depth is privileged over breadth. Environmental, socio-economic, technological, and political contexts will be considered as inflecting rather than determining disciplinary thought and action.

HT2024 | History of Architecture II
Following on History I, History II focuses on the complicated relationships between architecture and its past as well as its various contexts over time. It is structured as a dialogue between the historical and theoretical frameworks that have shaped the discipline by means of selected case studies. Although the class is roughly chronological, its organizing principle is thematic. Students will explore architectural history synoptically rather than merely factually, and selectively as opposed to comprehensively: depth is privileged over breadth. The core of the course material is drawn from the Baroque (17th century) through the dawn of modernity (turn of the 20th century). The class treats a range of concepts developed by architects, philosophers, and historians, and trace the ways in which they landed, or didn't, in a variety of different environmental, socio-economic, geographical, and political milieus. Our overarching goal is to consider architecture as a way of thinking and acting in the world with its own unique set of agendas, agencies, and objects.

HT2021 | History of Architecture III
Building on History I, with its focus on the core concerns of the discipline, and History II, with its investigation of the complex relationships between architecture and ethics, equality, power, and capital over time, History III explores architectural projects, texts, and agendas in the context of the technological developments, political upheavals, wars, and hopes of the long 20th century. As always,

depth is privileged over breadth. Readings focus on the intellectual context in which a project took shape. In-class discussions are weekly opportunities for students to demonstrate nuanced, thoughtful, and original understanding of the material at hand.

HT2030 | Architectural Theory*
This course examines emerging theoretical directions for the field and equips students to engage in the discourse in an informed way. The approach is thematic rather than chronological and forward-looking rather than historical, although history will be addressed through readings which both define the architectural discourse of the recent past (1990s on), and provide models for producing theoretical writings. Special attention will be paid to the topics of highest interest and relevance at SCI-Arc with the understanding that new discourse will be generated and new topics advanced over the course of the semester. Students are expected to actively participate in the risky and deeply creative work of speculation; to develop and articulate thoughtful, committed and highly individual positions on architecture as they wish it to be; and to openly share ideas and constructive criticism with one another.

* No longer required for students entering the 2018-19 Academic Year or after.

HT2035 | Rhetoric I: Contemporary Architectural Discourse
The seminar will operate as a revolving roundtable discussion where students will hone their skills in taking a position on issues deemed relevant to contemporary architectural discourse. We will collectively identify what is on the horizon–the next in terms of aesthetic agendas, architecture's contemporary and future societal role, and the impact of theoretical and technological innovation on architecture's design and communicative repertoire. Influence traces a broad and informative arc, linking things that would seem to produce productive frictions with one another–classical forms of rhetoric and knowledge production, Harold Bloom's consideration of poetic voice in The Anxiety of Influence, and the agendas of contemporary Instagram influencers. The seminar is intended to prepare students to select and verbally argue relevant positions in contemporary architectural discourse as they approach their thesis year at SCI-Arc. Topics to be considered include: affinities, forms of attention, AI, world making, queer phenomenology and environmental speculations. The majority of class work will be done in-class in the form of verbal argumentation. Instead of written papers, students will be expected to compile notes that will inform the debates. Throughout the course of the revolving roundtable we will consider a series of short extracts from various authors that will be discussed in terms of how well the authors have constructed their arguments and to what degree their positions become influential.

HT2050 | Thesis Research
The SCI-Arc Undergraduate Thesis is the culmination of the five year B.Arch curriculum. A focused thesis project for a building engaging a site and context manifests the cumulative knowledge students have acquired throughout their

education and acts as a point of trajectory from which to engage the discipline, field and profession at large. During the final year of the B.Arch program, students work with an advisor to develop an architectural thesis tested through the development of a project that advances the highest degree possible of design and technical expertise coupled with critical thinking. Each student is expected to conduct research to establish a relevant historical, theoretical, cultural, and/or technical position. It is anticipated that the position will be tested through several modalities - written, spoken, designed, modeled, and visualized - ultimately culminating in Undergraduate Thesis Presentations.

Students are encouraged to develop a critical and rigorous approach to architecture and to explore the forefront of the discipline, leading the conversation about the next in terms of aesthetic agendas, architecture's contemporary and future societal role, and the impact of theoretical and technological innovation on architecture's design and communicative repertoire. The thesis prep seminar will operate as a revolving roundtable discussion where students will hone their skills in taking a position on affinities deemed relevant to the contemporary architectural discourse. The class will collectively identify trajectories for their thesis projects and refine these throughout the course of the semester using collecting and real-time editing as primary forms of engagement.

M.Arch 1

HT2100 | Introduction to Contemporary Architecture

This course introduces and contextualizes key concepts in 20th century and contemporary architecture to provide a foundation for the study of both the discipline and practice of architecture. After introducing fundamental concepts related to architectural form and composition, lectures will focus on major 20th century movements, including modernism and postmodernism, will review major projects and polemics of the periods, and unpack salient theoretical arguments associated with them. The course will devote significant attention to specific relationships between the organization, configuration, and articulation of buildings and the historical, conceptual, and cultural arguments with which they are associated. The course will also emphasize the use of historical precedents by architects and the cultural and social implications of design decisions, particularly those related to issues of diversity and social equity.

HT2101 | History of Architecture and Urbanism I

This course is an introduction to the history of architecture and urbanism and a preparation for informed participation in the field. The focus will be on significant considerations in the field across history: issues of origins, visual regimes, massing, interior, ground, apertures, and articulation. The organizing principle of this class is thematic rather than chronological. Students will explore architectural history synoptically rather than merely factually, and selectively via case studies as opposed to comprehensively: depth is privileged over breadth. Environmental, socio-economic, technological, and political contexts will be considered as inflecting rather than determining disciplinary thought and action.

HT2120 | History of Architecture and Urbanism II

Buiding on History I, History II focuses on the complicated relationships between architecture and its past as well as its various contexts over time. It is structured as a dialogue between the historical and theoretical frameworks that have shaped the discipline by means of selected case studies. Although the class is roughly chronological, its organizing principle is thematic. Students will explore architectural history synoptically rather than merely factually, and selectively as opposed to comprehensively: depth is privileged over breadth. The core of the course material is drawn from the Baroque (17th century) through the dawn of modernity (turn of the 20th century). The class treats a range of concepts developed by architects, philosophers, and historians, and trace the ways in which they landed, or didn't, in a variety of different environmental, socio-economic, geographical, and political milieus. Our overarching goal is to consider architecture as a way of thinking and acting in the world with its own unique set of agendas, agencies, and objects.

HT2121 | History of Architecture and Urbanism III

Building on History I and II, with its focus on the core concerns of the discipline, and History II, with its investigation of the complex relationships between architecture and ethics, equality, power, and capital over time, History III explores architectural projects, texts, and agendas in the context of the technological developments, political upheavals, wars, and hopes of the long 20th century. As always, depth is privileged over breadth. Readings focus on the intellectual context in which a project took shape. In-class discussions are weekly opportunities for students to demonstrate nuanced, thoughtful, and original understanding of the material at hand.

M.Arch 2

HT2200 | Theories of Contemporary Architecture I

The main objective of this seminar is to provide a platform for students to do work on the territory of contemporary architectural theory in the interest of formulating their current studio production as well as future professional agendas. Currently architecture is in the process of being actively redefined by shifting political, social, technological, and ecological paradigms. Taking as a starting point Sigfried Giedion's characterization of transitory facts (sporadic trends) and constituent facts (recurrent and cumulative tendencies) as decisive in the shaping of architectural history, we will examine the complex terrain defined by the recent shifting of paradigms and attempt to discern the difference between constituent and transitory facts – and fictions – that are actively shaping the contemporary moment. Acting as architectural entrepreneurs, we will identify niches for future action and innovation. The seminar will introduce several contemporary disciplinary themes through readings and project presentations. These themes are aligned with the content of the 2GAX studio and are intended

to outline research trajectories that students will pursue collectively throughout the duration of the course in the form of in-class discussions and small group debates. Each student will be required to conduct ongoing research, culminating in a clearly formulated argument that advances a specific position on one of the disciplinary themes introduced in the seminar. This material will be presented in the form of a written essay and a final roundtable debate. The research should be situated as a test case for specific approaches to design and to alternative modes of practicing.

HT2201 | Theories of Contemporary Architecture II

Building on the base ideas established in Theories of Contemporary Architecture I, this course will examine in detail recent and historical texts on architecture, philosophy, literature, music, and art. Through these texts, a diversity of approaches to architectural theory and practice will be examined and interrogated within broader social, cultural, and historical contexts from the 1950s to the present. Through analysis of and critical writing about these texts as well as buildings and projects of the period, students will develop new vocabularies for contemporary architectural discourse. This course will trace a set of major themes that have defined much of architectural discourse since the Second World War. Some of these themes have emerged from within architecture, some from larger philosophical and cultural debates. Alongside this content, the course will analyze the writing of criticism and the essay form both through the readings and in the students' own work for the course.

HT2410 | Thesis Research

Graduate Thesis Advising is a required part of Thesis. These sessions are intended to expose students to the historical and theoretical perspectives that are most germane to their developing design ideas and agendas. Students are expected to develop a thesis statement and to stay and actively participate during the discussion of their colleagues' work. (M.Arch 1 and M.arch 2)

EDGE

HT2504 | EDGE Research Seminar

Postgraduate students have the option to continue their research projects from Advanced Architectural Studies II by enrolling in this course, replacing an elective requirement. The Chair of Postgraduate Programs must approve this optional course.

HT2511 | DTP Design Lab I

The initial design lab of the program surveys the history of architectural education starting with founding of the École des Beaux-Arts (17th century France) to the present. Examining the evolving social contexts within which the figure of the architect is drawn and redrawn, students situate contemporary design theory and pedagogy within a well-developed historical understanding. Attention is placed on

how design studio problems change as societies and economies transform over time. The problem of asserting a foundational or core curriculum is studied relative to the difficulties of how the historical discipline inevitably adjusts to the changing circumstances of the world and evolving principles of education. The crucial role of technologies in architectural education and its relationship to architectural practice is emphasized throughout the semester.

HT2512 | DTP Design Lab II

The second design lab of the program examines the history of the university as an instrument of knowledge. The problem of how architectural knowledge is positioned relative to institutionality is examined both historically and theoretically. The course is structured as a series of workshops focused on different aspects of this problem. Students develop and present their theoretical positions on the topics in each workshop.

HT2513 | DTP Design Lab III

The final design lab of the program looks ahead to building an academic career. Students are introduced to a broad view of contemporary academic culture and develop a strategic understanding of how to conduct scholarship and research. With a focus on developing necessary writing and presentation skills, students develop a scholarly article for publication as a semester-long project.

HT2611 | Design of Cities Design Lab I

The initial design lab of the program examines the history of the European and American city. Theoretical topics are introduced examining the history of the urban grid and how property rights are defined relative to changing ideas of the ground in urban space.

HT2612 | Design of Cities Design Lab II

The second design lab of the program is structured as an open design research platform in preparation for the third and final design studio of the program. With a focus on contemporary problems of urban development, students develop a brief for design development in the third and final semester.

HT2613 | Design of Cities Design Lab III

The final design lab takes a close look at current problems in urban policy in relationship to the complex local contexts of a global society. Students develop a critical understanding of the complex interplay of urban policy in relationship to urban form. The course emphasizes the refinement of the arguments being developed in the design studio projects.

HT2711 | Advanced Architectural Studies I

This course develops a theoretical framework for what might constitute a program of advanced study in architecture. Research and scholarship have been difficult to define for architecture. In relationship to this difficulty, this course examines why

this difficulty exists and advances some preliminary propositions for what might constitute innovative forms of architectural research and scholarship. The course addresses the various topics represented in the postgraduate programs at SCI-Arc EDGE and is an open platform for debating and cross-fertilizing the projects that are being developed in the various programs of study. Students individually or in teams develop a research proposal for development in the subsequent semester.

HT2712 | Advanced Architectural Studies II

Building on the theoretical content of Advanced Architectural Studies I, students develop their research proposals from Advanced Architectural Studies I throughout the semester. The course culminates in a postgraduate colloquium presenting the results of the individual research projects.

HT2740 | Advanced Architectural Studies III

In the final semester of this three-semester course sequence, students work closely with a contemporary practitioner operating within the framework of each of the program. Each program offers a unique seminar emphasizing a particular problem of practice relevant to the student's area of study.

Recurring History+Theory electives

Please note that these courses are not offered every semester and are subject to change. Check the latest course schedule for current course offerings, and visit my.sciarc.edu for each semester's course descriptions.

HT2741 | The State of Things: Aesthetics
Walead Beshty

Aesthetics, in the classical Greek sense, describes the means by which a thing is knowable to the senses; in short, to study aesthetics is to study how we gain knowledge of the world through our physical interaction with the things that surround us. This course will establish a general model of contemporary aesthetics (stressing aesthetics' interconnections with social, political, and economic life), through late-twentieth and twenty-first century theory, along with numerous case studies drawn from cinema, art and architecture from the late-capitalist period through to the present day. Of central importance is how contemporary aesthetic discourse grapples with the rapid development of new technologies, the rise of global finance capital, and the colonial legacies of the United States and Europe, providing students with practical and historically grounded methods with which to assess and intervene in contemporary aesthetic discourse.

HT2742 | Bright Lights, Global Cities
Jasmine Benyamin

Film has long fascinated architects. From the Bauhaus masters and Le Corbusier to Charles and Ray Eames, from Bernard Tschumi and Rem Koolhaas to MOS, architects have deployed cinematic narratives in their own writing and research. They have leveraged the spatial, temporal, and sonic materiality of films to inflect their own design methodologies. The questions they ask of the medium are also the central questions of this seminar: How do architectural space and film space collide, re-situate and contaminate one another? How has architecture – both as image and metaphor– been manipulated, recast and re-framed by film? Bright Lights, Global Cities scales up these questions to examine representations of the city. Los Angeles and Lagos, New York and Hong Kong, Berlin and Tehran – how has our understanding of these cities been informed by film? In what ways have these films dramatized the consequences of globalization?

HT2743 | Pharmako-AI
Kenric McDowell

This class will explore what it means to treat AI as a poison and cure. Students will learn about the structure of AI systems and methods of co-creating with them. Models from cultural practices of co-creation through interspecies consciousness will be presented alongside the hyperdimensional structures of neural net technology. Frameworks like biosemiosis and the "poison path" will be employed to construct metaphysics and poetics of AI in the Anthropocene, for use in creation. This class will examine what AI is and what it isn't, and how to use this knowledge to create new AI-human interspecies relations that address contemporary crises of civilization.

HT2732 | Space is the Place
Benjamin Bratton

Seminar topics will include (but are not limited to): Los Angeles and California more generally in old and new space programs (JPL, SpaceX, Mojave Space Port, Northrup Skunkworks); closed-loop systems; geographic sensing and imaging; the truly alien and the productive qualities of alienation, corporeal prostheses; the geologic condition of culture; planetary logistics; the cognitive aesthetics of deep time; the Copernican turn; "space dogs" ; astropolitics, astrorobotics and astrobiology; Kim Stanley Robinson on (among other things) terraforming, comparative planetology and why the moon is new mars; Galina Balishova and soviet spaceship interior design; Lisa Messeri on the anthropology of exoplanets; Gökçe Günel on Buckminster Fuller/ Norman Foster in Masdar; Elie During on zero gravity philosophy without ground; Holly Jean Buck on why progressives should reconsider geoengineering; Sun Ra on Afrofuturism and outer space.

LIBERAL ARTS

The Bachelor of Architecture degree program at SCI-Arc includes a fully integrated Liberal Arts curriculum comprised of 12 core classes and 3 electives, a total of 45 units of nonarchitectural content. The Liberal Arts courses at SCI-Arc reimagine the training of young architects today, offering undergraduate students a breadth of knowledge and critical thinking skills to complement their design studio education.

The Liberal Arts core is designed to offer one of the most classical and diverse

curricula among any architectural institution, and indeed among undergraduate universities worldwide. Liberal Arts education in the first three semesters at SCI-Arc focuses on the basics; there are two semesters of writing, and two semesters covering art history from its origins to the present. The first-semester Race in America course brings students into direct contact with debates that continue to shape American culture. Introduction to Film initiates students into the cinematic atmosphere and legacy of Los Angeles, while Introduction to Design Cultures teaches the organizational skills of curatorship. Beginning in the second year, students begin their five-semester journey through the innovative Core Seminar sequence, which covers classic authors in reverse chronological order from the present day back through ancient classics of Western and non-Western traditions. The available electives change each year, and include such fields as art, film, history, philosophy, and science.

The Liberal Arts curriculum at SCI-Arc also features a flexible series of elective seminars and masterclasses taught by prominent visiting thinkers in a wide range of fields, from media theory to gender studies to new models of nature. Throughout the Liberal Arts curriculum, students are encouraged to think both logically and disruptively, speak and write effectively, analyze and organize information synthetically, collaborate creatively, interpret thoughtfully, argue persuasively, and draw connections from multiple perspectives.

Core Liberal Arts Seminars

LA8010 | Introduction to Design Cultures

Design Cultures provides an immersion into the history and theory of design cultures, focusing on the past century and including works of art, photography, film/video, dance/music and fashion. Research material is drawn primarily from Museum of Modern Art's new online database, which includes exhibitions from 1929 to the present. Students collaborate on investigations, conversations, and presentations engaging contemporary and historical approaches to collection, curation, and dissemination within discourses of design culture. The course focuses specifically on bodies of work that have been exhibited multiple times in different contexts over the course of the museum's ninety-year history, and in so doing asks students to understand not only the primary source material, but also the shifting curatorial positions that have organized the work for museum viewers at different points in time.

LA8011 | Forms of Writing I†

This is a college level writing class with a creative emphasis. Different approaches to writing are explored through the reading and composing of literary analysis, persuasive essay, memoir, critical review, and a short research paper. Critical study includes the analysis of poetics, modes of writing organization, academic writing, literary style, the short story, and research strategies. Special attention is paid to close textual reading and analysis, peer review and editing. Through the use of rhetorical analysis students become versed in a variety of writing modes. Throughout the course of the semester, attention is paid to sentence style and variety. Guidelines for the correct attribution and citation of primary and secondary sources when performing research are explained and reviewed. Pre-writing exercises help students to generate writing material, both creative and rhetorical. Captions and other editorial techniques are reviewed with an emphasis on clarity and coherence.

† Previously listed as "LA8011: Forms of Writing"

LA8012 | Introduction to Film†

This course is meant to serve as an introduction to the history of film, its aesthetics, mechanics, languages and genres. By analyzing the expressive techniques, forms, and styles of a variety of films, we will try to assess the ways in which films produce meaning and the status of that meaning in the broader political, cultural, and aesthetic sphere. To best illustrate the changes and maturation of film practices over time, the course will begin with the beginnings of the cinema itself as the 19th century soon turned into the 20th, focusing each week on a different decade as we move towards the present. By the end of the course students should be (1) familiar with the overall arc of cinema's history to date; and (2) able to express critical thought about film, its history, and its aesthetic development in class discussion, analytical writing, and eventually even in casual conversation.

† Previously listed as "LA8012: Film I"

LA8013 | History of the Universe‡

This course examines the history of the physical sciences and their role in reshaping the intellectual cosmology of the west and advancing the exercise of political and economic power by Europe and North America. The physical sciences, and the technologies with which they co-evolved, have been instrumental in creating the modern understanding of the universe around us, yet they have also played an active role in shaping that universe. We will investigate the paradoxical dual role of physics, astronomy, chemistry, geology, and climatology as both interpreters of a pristine natural world beyond the pettiness of human conflict, and as active constructors of that world through the mechanisms of technology and ideology. The shifting allegiances between the physical sciences and the major political and religious power structures of early modern and modern European and American history will be a persistent theme. We will read from both seminal secondary sources in the philosophy, sociology, and history of science, as well as major primary sources starting with the Copernican Revolution.

‡ No longer required for students entering the 2021-22 Academic Year or after.

LA8014 | Art History I

Art History I introduces students to the history of art from prehistoric times to 20th-century modernism. Artistic styles, art movements, and methods of art production will be contextualized within larger societal, intellectual, and ideological shifts. Key art historical concepts such as form, medium, style, and iconography—and how avant-garde artists later questioned these terms—will be discussed. Topics covered include ancient and medieval art, Renaissance and Baroque art, Neoclassicism and Romanticism, photography and mass media,

abstraction and primitivism, modernism and colonialism, among others.

LA8015 | New Models of Nature‡

‡ No longer required for students entering the 2021-22 Academic Year or after.

This course charts the genesis of modern biology from a range of intellectual, social, and political factors. At its core, we will explore how laboratory physiology, natural history, and demography coalesced into a single scientific discipline through the Darwinian Revolution of the mid-nineteenth century and the Modern Synthesis of the mid-twentieth, and how that discipline rose to dominate universities and the medical-industrial complex following the emergence of molecular genetics between 1953-83. Along the way, the ideological function of biology in areas such as "scientific" racism, eugenics, population control, neoliberal economics, and ecological politics will be investigated. Students will be asked to respond to various theories of nature from contemporary thinkers, and to use material and life sciences as evidence for the development and refinement of these theories and claims.

LA8016 | Art History II

For the past several decades, there has been an exponential boom in the production, display, and collection of contemporary art around the globe. Contemporary art has become an expansive discourse as well as a thriving industry. Why does contemporary art sometimes feel so alienating? How can we make sense of the artworks we see in contemporary art galleries and museums? This course provides a foothold into navigating this uncertain terrain by offering a survey of major artistic movements, pivotal artworks, and theoretical concepts that have shaped the field of contemporary art from the end of World War II until the present day. Taking an international perspective, we will discuss select artworks produced in North America, Europe, Latin America, East Asia, And Africa. Art Movements to be studied include Abstract Expressionism, Art Informel, Gutai, Happenings, Fluxus, Neoconcretismo, Pop art, Minimalism, Land art, Conceptual art, Institutional Critique, Performance art as well as the artistic use of photography, film, video, and other technological media. Throughout the course, we will examine major issues in contemporary art, including questions of authorship, identity politics, the ethics of spectatorship, postcolonialism and globalization.

LA8017 | Philosophy I‡

‡ No longer required for students entering the 2021-22 Academic Year or after.

This course introduces students to foundational issues initiating the Western philosophical tradition, which include: metaphysics, epistemology, ethics, and political philosophy. Moving from the ancient Greek texts of Plato and Aristotle, the course will survey thinkers from the medieval and early modern philosophical tradition. Readings will concern the nature of the good, the just, the ideal political form, the limits and possibilities of knowledge, virtue, the nature and existence of God, free will, primary and secondary qualities, substance, essence, causality, principles of identity.

LA8018 | Philosophy II‡

This course introduces students to foundational issues in Western philosophical thought through a broad survey of the two main philosophical traditions originating in the early 20th century: analytic and continental philosophy. Similar to the visual arts, music, and literature of the early 20th century, both analytic and continental traditions can be seen as expressions of cultural modernism. Both rejected past tradition in favor of novel, sometimes shocking ways of understanding the world. But each did so in markedly different ways. Analytic philosophy modeled itself on the sciences and strove to remove the ambiguities in thought that hampered past philosophers by uncovering the logical structures of language. In contrast, those in the continental tradition tended to reject the scientism characteristic of analytic philosophy and earlier enlightenment thinkers and focused instead on those aspects of the world and human experience that were irrational and beyond rational understanding. In the first half of the course, we will focus on analytic philosophy by tracing the development of predicate logic and logical atomism from Frege and Russell to Wittegenstein. We will then look at the logical positivists and their subsequent detractors. The second half of the course will look at several developments in continental thought including existentialism and phenomenology.

‡ No longer required for students entering the 2021-22 Academic Year or after.

LA8019 | Film II‡

This course explores the vital and complex intersections between the arts of film and architecture, from the representation of architects in film to the role of architecture in film and of course the architectural qualities of film itself. Much of the class will focus on films strongly invested in architecture and will explore the relationship between directors, art directors, and production designers in the construction of cinematic architecture. The unique architecture of several of classic Hollywood film studios will also be considered, as well as the work of architects and designers who have worked in and with film and have embedded their architecture and design practice in various cultures of the moving image. Students will see that in many of the films the architectural environments and even entire cities themselves are characters as integral as any of the actors in the cast. By the end of the course, students will have a new perspective on the impact that films have had on the practice of architecture and the way we experience our built environments.

‡ No longer required for students entering the 2021-22 Academic Year or after.

LA8022 | Contemporary Civilization‡

It is often stated—to the point of cliché—that we are at a pivotal moment in history. Technology is developing at such a pace that it no longer seems to be fully under our control. Automation has left many jobless and is continually threatening to eliminate more jobs, destabilizing our economic, social, and political institutions. The internet has fundamentally altered—for better and ill—how we relate to each other. And significant changes in the Earth's temperature, caused by our technologies, threaten the existence of humanity itself. In this course, we will survey a series of texts that offer a theoretical framework for how to under-

‡ No longer required for students entering the 2021-22 Academic Year or after.

stand this current moment—our contemporary civilization. These texts will offer us ways of reevaluating our past to understand our present, they will analyze the individual's relationship with society, and look toward the future to predict the consequences of our current actions so that we might alter them.

LA8023 | Rhetoric II: Positions in Contemporary Philosophy‡

‡ No longer required for students entering the 2021-22 Academic Year or after.

The aim of this course is to familiarize students with some of the main topics of discussion in contemporary philosophy. The fields of architecture and design often find themselves in conversation with philosophy, and our objective is to ensure that SCI-Arc students feel comfortable entering this conversation in future years. Though we will focus intensively on short readings during the semester, we hope that students will acquire a lasting taste for independent reading in the humanities in a way that will nourish their future professional practice. We have prepared a single PDF course packet of freely available essays by some of the leading authors in contemporary philosophical discourse. But beyond this packet, students are encouraged to read as widely as they are inclined, both during the semester and afterward. It is critical that no one fall behind on the readings; we have tried to make this easier by limiting their length. Discussion will be the heart of the class, since our aim is not only that students learn to keep up with ongoing philosophical developments relevant to architecture and design, but also that they are comfortable taking and defending positions in contemporary controversies and posing relevant questions to the weak points inevitably found in any philosophical theory.

LA8110 | Race in America

This course is an introduction to issues of race, primarily in their effects on the North American socio-political context. Issues covered may range from such historical themes as the lingering impact of slavery and the civil rights movement to the treatment of Native American populations, as well as contemporary discrimination against Asian-American Pacific Islanders, Latinx, and other communities. More recent texts in race theory will also be covered extensively. The goal of the course is to make both American and non-American students more aware of and sensitive to the structural importance of race for the present-day political atmosphere.

LA8111 | Forms of Writing II

This course further develops skills introduced in Forms of Writing I, with more advanced expectations and more complex exercises. Different approaches to writing are explored through the reading and composing of literary analysis, persuasive essay, memoir, critical review, and a short research paper. Critical study includes the analysis of poetics, modes of writing organization, academic writing, literary style, the short story, and research strategies. Special attention is paid to close textual reading and analysis, peer review and editing. Through the use of rhetorical analysis students become versed in a variety of writing modes. Throughout the course of the semester, attention is paid to sentence style and

variety. Guidelines for the correct attribution and citation of primary and secondary sources when performing research are explained and reviewed. Pre-writing exercises help students to generate writing material, both creative and rhetorical. Captions and other editorial techniques are reviewed with an emphasis on clarity and coherence.

LA8112 | Core Seminar I: Contemporary

This course covers a number of important primary sources, all of them written by living authors. Areas covered may include such fields as anthropology, mathematics, media theory, philosophy, psychology, race theory, science, sociology, and others. The goal of the course is to introduce the state of the art in these fields through grappling directly with accessible presentations by leading authors. The requirement to use only living authors on the syllabus is designed to ensure that course content will evolve rapidly and year-by-year to cover emerging discoveries and controversies.

LA8113 | Core Seminar II: 20th Century

This course covers a number of important primary sources, all of them written by key authors whose work was done mainly in the 20th or late 19th centuries in a variety of humanistic and scientific fields. Representative authors may include such figures as Susan B. Anthony, Simone de Beauvoir, Niels Bohr, Jorge Luis Borges, Marie Curie, Albert Einstein, Frantz Fanon, Sigmund Freud, Martin Heidegger, Franz Kafka, Melanie Klein, Lynn Margulis, Friedrich Nietzsche, and Flannery O'Connor, though assignments may vary slightly from year to year. The goal of the course is to empower students to grapple directly with accessible presentations by leading historical figures.

LA8114 | Core Seminar III: Modern Era

This course covers a number of important primary sources, all of them written by key authors whose work was done mainly in the 16th through 19th centuries in a variety of humanistic and scientific fields. Representative authors may include such figures as Francis Bacon, Emily Brontë, Charles Darwin, René Descartes, Emily Dickinson, Frederick Douglas, Elizabeth of Bohemia, Galileo, David Hume, Immanuel Kant, Madame de Lafayette, William Shakespeare, Mary Shelley, Alexis de Tocqueville, the Declaration of Independence and the United States Constitution, though assignments may vary slightly from year to year. The goal of the course is to empower students to grapple directly with accessible presentations by leading historical figures.

LA8115 | Core Seminar IV: Medieval Era

This course covers a number of important primary sources, all of them written by key authors whose work was done mainly from the early Medieval through Renaissance periods in a variety of humanistic and scientific fields. Representative authors may include such figures as St. Thomas Aquinas, Farid ud-Din Attar, Chaucer, Dante, John Scotus Eriugena, al-Farabi, al-Ghazali, Ibn Khaldun, Ibn Sina,

Li T'ai Po, Moses Maimonides, Petrarch, Jelaluddin Rumi, Murasaki Shikibu, and Tu Fu, though assignments may vary slightly from year to year. The goal of the course is to empower students to grapple directly with accessible presentations by leading historical figures.

LA8116 | Core Seminar V: Ancient Era

This course covers a number of important primary sources, all of them written by key authors whose work was done mainly during the Ancient world in both Western and non-Western cultures in a variety of humanistic and scientific fields. Representative authors may include such figures as Aristophanes, Aristotle, St. Augustine, the ***Bhagavad-Gita***, the Bible (Genesis), the Buddha, Julius Caesar, Confucius, Euclid, Lao-Tzu, Ovid, Plato, Sappho, and Sophocles, though assignments may vary slightly from year to year. The goal of the course is to empower students to grapple directly with accessible presentations by leading historical figures.

Recurring Liberal Arts electives

Please note that these courses are not offered every semester and are subject to change. Check the latest course schedule for current course offerings, and visit my.sciarc.edu for each semester's course descriptions.

LA8502 | Aesthetic Theory
Graham Harman

Aesthetic theory is a topic worth knowing for anyone headed into the architecture and design professions. The focus of this course is the concept of "formalism," the notion that the artwork is independent of its wider socio-political surroundings, and the arguments both for and against this way of looking at art. The semester will begin and end with a classic authority: Immanuel Kant at the beginning, Aristotle at the end. More contemporary figures will be studied during the middle part of the semester.

LA8523 | Destruction and Rebirth of Cities
Adam Lawrence

This course will be based on reading, writing, films and discussion. The goal will be to learn something about how your discipline relates to modern world history and organized political violence. We will cover topics including, but not limited to: the Burning of Atlanta (United States, 1864), the Siege of Paris (France, 1871), The Monumental Architecture of Nazi Germany (1933-39) the Destruction and Rebuilding of Berlin (Germany, 1944-91), the Atomic Bombings of Hiroshima & Nagasaki (Japan, 1945), the Fall of Saigon (Vietnam,1975), The Building of Tel Aviv (Israel, 1948), and the Construction & Maintenance of the Mosul Dam (Iraq, 1981-2003). We will learn how a form of warfare that aims to break an entire nation's ability to fight by annihilating its urban centers became technologically possible and strategically acceptable for many of the world's most powerful societies over the last 200 years.

LA8525 | History of Anime and Japanese Animation

Michael Stock

This course is an introduction to the history, aesthetics and cultural significance of Japanese animation. While the word anime in Japan means simply 'animation,' outside of Japan, the word takes on a more loaded meaning in terms of genre, style, stories and audiences. The class examines the ways Japanese animation represents Japan's history and society as well as the diverse ways these anime films are consumed outside of Japan.

MASTERCLASSES

As part of the liberal arts curriculum, SCI-Arc offers one or two masterclasses each semester to both graduate students and undergraduate students who have completed at least 10 semesters. Each masterclass is taught by international figures in their respective areas of expertise. Previous masterclass instructors include Sianne Ngai, Benjamin Bratton, Timothy Morton, and Bruce Sterling. Check the latest course schedule for current course offerings at my.sciarc.edu.

VISUAL STUDIES

The Visual Studies concentration is a defining feature of the SCI-Arc pedagogy. The famously elaborate drawings, models, renderings, and animations produced by SCI-Arc students and faculty reflect not only the ability to technically document and visually communicate a building's design, but also a deep and long-standing interest in employing these tools as generative creative media. Visual Studies gives students both professional competency and a means for creative speculation. With exposure to this dual capacity of architecture's tools, the students are introduced to an evolving tradition of creative techniques.

In the core Visual Studies sequences, great emphasis is placed on the development of contemporary technical expertise and visual acuity. Through in-depth instruction in the use of advanced software, both undergraduate and graduate courses teach students the skills and tools to precisely determine and compellingly represent complex three-dimensional geometric constructs, and to apply these constructs to building projects. In addition to the direct application of this expertise by students in their Design Studios, there are also opportunities to explore and expand these skills via advanced elective Visual Studies courses and workshops led by architects and other creative professionals.

Core Visual Studies seminars
Undergraduate

VS4011 | Visual Studies I

The first visual studies course, affectionately dubbed 'Deets', introduces students to the role of the detail in architectural representation. Through careful construction of two-dimensional and three-dimensional outputs, the seminar asks students to freshly address the detail through the lens of formal convention

and informal riffing. Work begins with an investigation of historical building details which students unpacked into layers of graphical codification along with the layers of building. The final production focuses on a detailed assembly of a pliant surface and a reduced frame. With an attention to developing corners through tailored model techniques and custom joints, each student explores a relaxed and yet specific system of coherence between material parts.

VS4020 | Visual Studies II

This course introduces students to a set of digital workflows that revolve around two strategies of representation: modelling and simulation. The first half of the semester focuses on the production of a collection of digital objects through modelling techniques. In the second half, students curate a set of digital objects from the collection and submit them to simulations found in gaming engines towards the production of a "world". Modelling exercises involve building fully formed digital objects from the ground up using Curves, Surfaces, Breps, and Meshes. The students will learn how to set up a physics based interactive environment, give the agents intelligence through the use of behavior tree AI algorithms, and design and implement the user interface layer for the simulation. The end goal is to create a fully-fledged simulated World that inherits the capacity of computer games to host multiple aesthetic regimes within the same environment.

VS4021 | Visual Studies III

The contemporary architect is presented with ever changing methods of production and representation. Gaining higher control in digital tools through using scripting skills nowadays allows designers to be able to hack into a conventional software platform and customize their own design tools for their specific design tasks. This seminar will explore this idea through designing digital models with code generated geometries. Further to that, this seminar will also push students to think further for the execution of those digitally generated geometries into physical reality by proposing relevant material and construction processes as well as by producing 3/4" to 1' physical models. The proposals generated by the students will explore the consequences of novel forms digital production for the contemporary architect.

VS4030 | Visual Studies IV*

The final Visual Studies core sequence offers topically different sections taught by different instructors in the tradition of a Masterclass. In this way the school emphasizes its longstanding commitment to architectural speculation via drawing and other generative tools, and prepares students for the 'vertical studio' lottery process the following semester. These sections are led by faculty, and on occasion by special visitors. The VSIV course is a required elective for 3A students.

*No longer required for students entering the 2018-19 Academic Year or after.

M.Arch 1

VS4100 | Visual Studies I

The 1GA Visual Studies course is structured as both a technical course and a general survey. The course will introduce students to the conventions, tools, and procedures of architectural drawing and form making, as well as expand and contribute to the ideas, debates, and formats underpinning the role of representation in architecture. The course is conceived of as two concurrent but distinct parts: the assignments, which focus narrowly on the interrelated roles of geometry, instrumentation, and representation; and the lectures, which broadly examine various modes of description. The course will use drawing to connect and communicate with multiple audiences both inside and outside the discipline.

VS4101 | Visual Studies II

The course forms the continuation of Visual Studies I by expanding on the conceptions of representational tools, emphasizing diagramming and spatial representations, and incorporating scripting, rendering, and model making. The project focuses on developing the precision of intentions in the production of architectural drawings and instilling a critical sensitivity for the inherent bias and interface of each deployed medium of representation.

VS4120 | Visual Studies III

This course provides an introduction to advanced techniques in modeling and fabrication processes by focusing on digital drawing and production tools that enable the representation of complex and dynamic surfaces, procedural and parametric forms, and the development of the relationship between architecture and geometry. Over the course of the semester there will be four related exercises as well as lectures, readings, and discussions on the conceptual framework of the seminar. The seminar will tie into the techniques and conceptual framework in 2GA Design Studio. The course will begin with a research assignment about the history and fabrication of manufactured objects. Students will then consider the digital model space by manipulating 3D assets using seminar specific scripts in Rhino, Grasshopper, and Kangaroo studying part to whole relationships and compositions. These digital models will be translated into Paper Space through a set of physical paper models that combine various material catalogues as texture mapping, shifting legibility between geometry and image. Simultaneously, students will explore contemporary rendering techniques in a live-render environment using Keyshot. This exercise will be contrasted with real time live imaging in the Robot House.

VS4121 | Visual Studies IV*

The final Visual Studies core sequence offers topically different sections taught by different instructors in the tradition of a Masterclass. In this way the school emphasizes its longstanding commitment to architectural speculation via drawing and other generative tools, and prepares students for the 'vertical studio' lottery process the following semester. These sections are led by faculty, and

*No longer required for students entering the 2018-19 Academic Year or after.

on occasion by special visitors.

M.Arch 2

VS4200 | Visual Studies I for M.Arch 2
The class explores the relationship between subject and representation in contemporary culture, and the new potential communication that emerges in this visual and intellectual translation. During the course, the students will produce a series of digital geometrical subjects to be described with the use of scripting code language. Through the lenses of machine vision, students learn and appropriate technological mediums and visual vocabularies appropriating current logics of direct information, interactive complexity, and digital representation.

VS4201 | Visual Studies II for M.Arch 2
The goal of the class is to broaden students' intellectual and critical understanding of the various cultural implications that different digital workflows regimes have in architectural representation today. In particular, students will learn how to produce a collection of digital objects and curate them in a gaming simulation environment. Students will approach specific languages of context simulations able to shift the cultural reading of any architectural object. Context will be considered as it relates to current issues of contemporary technology, information, data sharing, politics and audience interaction.

EDGE

VS2811 | Design Lab I (Synthetic Landscapes)
The initial design lab supports the design studio with technical skills related to the design of virtual environments. Students develop experimental workflows for producing representations of landscapes incorporating game engines and AI-based imaging techniques.

VS4211 | Design Lab I (Fiction + Entertainment)
The initial design lab of the program is an intensive workshop in narrative media workflows. Students acquire necessary technical skills supporting the development of the design studio project.

VS4212 | Design Lab II (Fiction + Entertainment)
Continuing the development of narrative media workflows, advanced techniques are introduced. Guests speakers from Los Angeles' media industries supplement the development of advanced media skills.

VS4213 | Design Lab III (Fiction + Entertainment)
The final design lab of the program looks ahead to how careers in media are developed. Students are introduced to industry methods and acquire an understanding of how successful project proposals are structured and developed.

Recurring Visual Studies electives
Please note that these courses are not offered every semester and are subject to change. Check the latest course schedule for current course offerings, and visit my.sciarc for each semester's course descriptions.

VS2496 | Nonvisual Studies
Andrew Zago
Visual representation is constrained by the limits of the imagination. The nonvisual, on the other hand, exploits inherent structural potential within materials, geometries and logics while propelling work outside of what was previously conceivable. It orchestrates matter through the weaving and cross-weaving of rigorous techniques that lack a priori form. This seminar seeks new categories of form, realizable only through nonvisual, bottom-up means, and, consequently, new architectural possibilities for space, program, and tectonics.

VS2497 | Visionary Landscapes
Elena Manferdini
This seminar explores current modes to represent utopian visions for contemporary architecture. The class closely analyzes famous historical examples of visionary architecture, and unravels the underpinning strategies used in these drawings to trigger viewers' fascination. Utopian ideals have always relied on an engineered 'total design' in order to visualize their prescriptions, and this monistic reactionary approach to problems usually manifested itself through the production of fantastic images. The seminar focuses on the tactical elements that enabled this body of work to create utopian collective fantasies, rather than on the relative utopian contents.

VS2534 | Deep Skins Light Bones
Jenny Wu
This seminar investigates two fundamental paradigms in architecture: surface and structure, through a specific lens of a Gothic vault. The choice of the Gothic vault is strategic in that it possesses an amazing balance of structural exuberance with detailed ornamentation. The seminar studies both surface and structure as integral elements of this specific architectural construction. Through the use of parametric modeling, students develop one unit of an existing Gothic vault and take it through various stages of transformations. The seminar looks to further evolve both the surface and structure through parametric modeling in developing a new ceiling system. The course is less interested in 2-D graphic patterning of the skin but more interested in a "deep" skin, one that incorporates three-dimensional patterns, as well as structure that moves from being purely indexical of its load paths to becoming more atmospheric and expressive.

VS2533 | Kremlin Form

Anna Neimark

This seminar explores the concepts, theories, and representational techniques within the history of formalism, abstraction, and estrangement in order to argue for a theory of urban formalism. Texts by Victor Shklovsky, Rosalind Krauss, Colin Rowe, Peter Eisenman, and El Lissitzky form the basis for discussions and critiques. Students are asked to draw the existing urban condition of the Moscow Kremlin as pure form by describing it as a monumental object. Exercises focus on precise measured drawings based on available information that will allow students to lower the resolution of reality to a limited number of regulatory geometries.

VS2637 | A Radical Thing

Kordae Henry

This course will imagine a speculative product and new advertisement. In films like Blade Runner, or Ghost in the Shell adverts fill the world and become an important aspect of exposition of the film. Works such as Alisha Wormlsey, Alexandra Bell, and Hank Willis Thomas begin to scratch the surface on how advertisements can have multiple identities in society today. Our work will begin to speculate on future devices in which topics such as communication, energy storage, transportation can begin to be re-imagined in the 5th industrial revolution. Using 3D tools, students will gain experience in speculative design thinking, industrial design modeling, product lighting, and postproduction methods.The final project will be a product advertisement designed to promote a speculative design entirely made from 100% biodegradable plastics.

VS2659 | Beyond the Digital

Coy Howard

Too often today the digital medium of working becomes the content of the work, with the expressive sensibility of the work predetermined by the software of choice. The creative intent thus is sometimes no more than doing something new - the latest fad or fashion. This seminar puts forth the position that artistic practice should look back as well as forward, guided by intuition as well as intellect, and be focused on creating a poetic sensuous immediacy of experience rooted in the ineffabilities of life's complex and often contradictory resonances. Lectures on specific poetic techniques will be accompanied by readings and design assignments. Each assignment will require that work be developed and pinned up for critic each week. Assignments will be given in photography, film, graphic design, and architecture.

VS2661 | VR Film Sets III

Alexey Marfin

Films have always used architecture to tell stories. The worlds, cities, and spaces of cinema are responsible for creating the social, cultural, and political contexts of its screenplays - from ***Parasite*** (2019) and its socially and physically stratified urban environment - to ***Hollywood Hong Kong*** (2001) and its literally and figuratively overshadowing tower complexes. Furthermore, today VR (virtual reality) allows the architecture of cinema to expand beyond the two-dimensional screen and have even more narrative weight. In this seminar we will take movie scenes and re-imagine them as 360-degree VR environments. We will learn photorealistic 3D rendering, texturing, and lighting - using VFX-industry CG generalist workflows. We will look specifically at films which use verticality in their designs, to portray unique social and cultural contexts.

Workshops in visual studies are offered once or twice a semester to upper division students. Please visit my.sciarc.edu for more information regarding workshops in visual studies.

SUMMER AT SCI-ARC

Summer at SCI-Arc offers a broad range of studios and seminars for undergraduate, graduate, and postgraduate students, as well as Graduate Thesis. Students in advanced studios construct their own curriculum by selecting studios and/or seminar courses. Seminars offered include History + Theory, Visual Studies, Applied Studies, and Liberal Arts courses, professional development seminars, and SCI-Arc's Community Design Program. SCI-Arc core students are able to enroll for full- or part-time studies at the level for which they qualify.

Summer Workshops

Summer at SCI-Arc offers students the opportunity to work for a concentrated period of time with experts in the fields that include Architecture, Engineering, Art, and History + Theory. The workshops involve an intense and full-time effort. This program is open to both SCI-Arc students and students visiting from other institutions.

Please visit sciarc.edu/admissions/financial-aid for fees and tuition information.

MAKING + MEANING

The Foundation Program In Architecture

SCI-Arc's Foundation Program in Architecture addresses a broad range of educational needs, catering to anyone with an interest in architecture and providing a head start for students preparing an application for, or about to embark upon, a degree in architecture or another design-related field. The Making+Meaning (M+M) curriculum continuously evolves to incorporate the latest developments in materials and fabrication technologies. Students learn about the language of architecture, develop design methods, and hone representational and model-making skills in a studio atmosphere that fosters creativity, innovative thinking, and a flexible process of design. Construction and model-making are introduced early on as means with which to visualize and test three-dimensional ideas. Throughout these explorations, students learn to balance initial intuitive responses with the need to clearly present their work to a jury.

DESIGN IMMERSION DAYS

SCI-Arc's Design Immersion Days (DID) is a four-week summer program devoted to introducing high school students to architecture and design. Rising sophmores, juniors, and seniors are offered the opportunity to explore careers in architecture and design or simply satisfy deep curiosities about how products, buildings, and environments are designed and made. Among skills students acquire in the program are freehand sketching, photography, critical and analytical thinking, nonlinear thinking, design drawing, design modeling, graphic presentation, and portfolio layout and design.

INTERNATIONAL PROGRAMS + INSTITUTIONAL RELATIONSHIPS

Engaging with the international architecture community, SCI-Arc provides students with the opportunity to expand their practice and education beyond Los Angeles. SCI-Arc collaborates with institutions and organizations around the world to expand its global reach, and to offer students an education as wide-ranging as the field of design itself.

International Programs has grown to five (5) continents and is continuing to connect with a wider network of designers and thinkers. SCI-Arc engages the global dialogue surrounding design in three ways: Satellite Initiatives, a Study Abroad Program, and Exchange Programs.

Satellite Initiatives

SCI-Arc Satellite Initiatives serve as sites of experimentation, bringing together minds from around the world for unique symposia, diverse exhibitions, and workshops against the backdrop of cities outside of the context of Los Angeles. SCI-Arc satellites are located in Mexico City, Shanghai, Bogotá, and Mumbai.

Exchange Programs

SCI-Arc offers exchange programs with a variety of global university partners including the Royal Melbourne Institute of Technology in Australia, the University of Applied Arts in Austria, and the Bartlett School of Architecture in the United Kingdom.

Study Abroad

The Tokyo Study Abroad Program introduces students to the architectural and cultural vibrancy of Japan's capital city. The three-month program consists of a design studio and seminar led by SCI-Arc faculty, specialized travel seminars across Asia, and workshops taught by renowned designers from leading institutions such as the University of Tokyo, Kyoto Seika University, Keio University, Hosei University, and Universidad Ibero-Americana, Mexico City.

COMMUNITY DESIGN PROGRAM

Since relocating to Downtown Los Angeles, SCI-Arc has sought opportunities to engage various local communities by spearheading a number of tactical, action-based projects, which enable students to collaborate directly with community agencies and undertake design/build projects. Each project deals with some form of practical and urgent problem-solving circumstance. This might involve the creation of built structures or functional implements, or the imparting of vital skills to community members or at-risk groups.

Drawing upon the professional expertise of architects, urban planners, computer designers, visual artists, social scientists, cultural theorists, and others, SCI-Arc faculty and students have demonstrated a powerful capacity to impact specific social problems, working with intentionally short lead times and reacting quickly to address immediate conditions. Whether coordinating with local government, city or community agencies, private industry, educational or philanthropic institutions, or local residents, SCI-Arc's Community Design Program is known for applying solutions that are at once uniquely innovative and personally felt.

YOUTH ACADEMIC OUTREACH INITIATIVE

The Youth Academic Outreach Initiative at SCI-Arc is dedicated to building connections with high school students both locally and internationally by providing program opportunities which expose the diverse population of young people in Los Angeles and abroad to design tools and architectural thinking.

Local POP-Arc workshops are part of SCI-Arc's growing outreach efforts to attract and engage LA's diverse youth population across the Los Angeles Unified School District (LAUSD), inspire curiosity about the world of architecture and design, as well as familiarize students with the academic environment at SCI-Arc. POP-Arc is facilitated by SCI-Arc Design Faculty. Current SCI-Arc students engage as peers with participating POP-Arc students, sharing their individual experiences with applying to architecture school and becoming architecture students.

Our Youth Academic Outreach Program is continuously seeking to grow future collaborations and partnerships for POP-Arc and beyond. Past institutional partners which have hosted POP-Arc workshops include Inner-City Arts, Institute of Contemporary Art, Los Angeles, and many more.

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