

THE IRWIN S. CHANIN SCHOOL OF ARCHITECTURE

MISSION STATEMENT

The mission of The Irwin S. Chanin School of Architecture is to provide for its students the finest professional education available within an intellectual environment that fosters and expands their creative capacities and sensibilities and establishes the foundation for a productive professional life. The school is committed to the belief that one of society's prime responsibilities is toward learning and education in the deepest sense: that the exercise of individual creativity within a willing community is a profoundly social act. Fundamental to the mission of the school is the maintenance of an atmosphere in which freedom of thought and exploration can flourish, where students can explore and utilize their special and individual talents, interests and modes of working, to their highest potential.

BACHELOR OF ARCHITECTURE PROFESSIONAL DEGREE CURRICULUM

Aims and Objectives The School of Architecture offers a five-year program leading to the bachelor of architecture, a first professional degree accredited by the NAAB. The architecture curriculum is designed to prepare students for a rich array of opportunities in the profession, offering a broad cultural and intellectual foundation in the liberal arts as they relate to the design of the environment at all scales. The discipline of architecture interpreted in the widest possible sense as a cultural practice is seen as a basis for a fully-rounded education at the undergraduate level. Students develop their knowledge and design skills within a framework of studios and courses that stimulate research and debate into the nature and role of architecture as a cultural practice with profound social and environmental implications.

The content of the curriculum, based on a wide cultural view of architecture, reflects broad ethical values. Faculty-student interaction is conducted on an intensive basis in the design studio and other classes. Within this framework faculty members encourage students to develop their individual interests and strengths, with a constant stress on fundamentals and a basic commitment intended to equip the graduate with a lasting ability to produce an architecture that is a meaningful synthesis of the social, aesthetic and technological. The relationship between architecture and other creative disciplines is stressed through the five years. Students are encouraged to express themselves both verbally and visually.

In a moment where the nature, role and scope of the architect is rapidly assuming new directions and dimensions in both the social and technological domains, the school emphasizes the principles of design and their underlying human values, while preparing students to respond positively to change. The program seeks to engender a strong sense of the responsibilities of service and leadership, team-work and individual creativity essential to the development of principled professionals dedicated to interpreting and constructing the spatial needs of the community.

The five-year design sequence is carefully structured to introduce the student to the principles of architectonics, the investigation of program and site, structures and environmental and building technologies, in a comprehensive and integrated curriculum. The studios comprise an introduction to the basic elements of form, space and structure; complex institutional design problems in their urban context; and a year-long thesis that demonstrates the student's ability to synthesize a comprehensive understanding of architecture in society. The traditional and

essential skills of drawing, model-making and design development are complemented by a full investigation of the analytical and critical uses of digital technologies. The study of world architecture and urbanism is deepened by the understanding of individual cultures, environmental and technological issues at every scale. The theory of the discipline, past and present, is investigated through the close analysis of critical texts and related to the theory and practice of other arts, such as public art, film and video. The position of the School of Architecture, together with the Schools of Art and Engineering and the Faculty of Humanities and Social Sciences, offers a unique opportunity for interaction and interdisciplinary research and experience.

The Cooper Union's location in New York City in the heart of downtown Manhattan provides a stimulating professional, social and cultural context for the education of an architect and an urban laboratory for the study of design in society. The numerous cultural institutions of the city provide an inexhaustible resource for research and experience outside the studio and classroom. The school's faculty includes nationally and internationally recognized architects; the school's diverse student body consists of highly talented and motivated individuals and its distinguished alumni are leaders in architecture and related fields.

The Irwin S. Chanin School of Architecture offers a five-year program leading to the bachelor of architecture degree. The degree requirements are intended to provide students with a rigorous training in and exposure to the creative and technical aspects of architecture. The professional courses in the curriculum are supplemented and enhanced by required courses both within and outside the discipline of architecture. The requirements are as follows:

Courses	Credits	
	Sem 1	Sem 2
First Year		
Arch 111 A-B Architectonics	4	4
Arch 114 A-B Freehand Drawing	3	3
Arch 115 A-B History of Architecture I	3	3
Arch 118 A-B Computer Applications and Descriptive Geometry	2	2
FA100R A-B Introduction to Techniques	1	1
Arch 103-4 Calculus and Analytic Geometry	3	3
Freshman Seminar	3	-
Texts and Contexts: Old Worlds and New	-	3
Total Credits First Year	19	19
Second Year		
Arch 121 A-B Design II	5	5
Arch 122 A-B Structures I	2	2
Arch 125 A-B History of Architecture II	3	3
Ph 165-6 Concepts of Physics	2	2
The Making of Modern Society	3	-
The Modern Context: Figures and Topics	-	3
Total Credits Second Year	15	15
Third Year		
Arch 131 A-B Design III	5	5
Arch 132 A-B Structures II	2	2
Arch 133 Introduction to Urban History and Theories	-	2
Arch 134 A-B Environmental Technologies	3	3
Arch 135 A-B Building Technology	2	2
Electives*	4	2
Total Credits Third Year	16	16
Fourth Year		
Arch 141 A-B Design IV	5	5
Arch 142 A-B Structures III	2	2
Arch 143 A-B Construction Management	1	1
Electives *	7	7
Total Credits Fourth Year	15	15
Fifth Year		
Arch 151 A-B Thesis	6	6
Arch 152 Structures IV	2	-
Arch 154 A-B Professional Practice	1	1
Arch 205/225 Advanced Concepts/Topics	2	2
Electives *	4	6
Total Credits Fifth Year	15	15
Total Credit Requirement for B.Arch. Degree	160	

*The elective component for bachelor of architecture candidates can be fulfilled by elective courses in areas such as humanities and social sciences, visual arts, mathematics and science and languages. Approval for these elective courses must be granted by the appropriate academic faculty. A minimum of six elective credits must be taken in the humanities and social sciences. The School of Architecture curriculum includes 32 credits of *required* coursework in general studies (non-professional coursework outside the discipline of architecture). In addition, students are required to complete 13 more credits of *elective* coursework outside the discipline of architecture.

Minor Students who complete a minimum of 15 upper-division credits in a specific field of liberal arts may qualify for a minor in that field of humanities and social sciences. Minors are offered and will be designated on student transcripts in the following fields: American studies; art history; literature; history and society. Additional information is available from the office of the dean of humanities and social sciences.

Accreditation

NAAB The National Architectural Accrediting Board mandates that the following information be included in catalogs: In the United States, most state registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The National Architectural Accrediting Board (NAAB), which is the sole agency authorized to accredit U.S. professional degree programs in architecture, recognizes three types of degrees: the Bachelor of Architecture, the Master of Architecture, and the Doctor of Architecture. A program may be granted a 6-year, 3-year, or 2-year term of accreditation, depending on the extent of its conformance with established educational standards.

Doctor of Architecture and Master of Architecture degree programs may consist of a pre-professional undergraduate degree and a professional graduate degree that, when earned sequentially, constitute an accredited professional education. However, the preprofessional degree is not, by itself, recognized as an accredited degree.

The Irwin S. Chanin School of Architecture of The Cooper Union offers the following NAAB-accredited degree programs: Bachelor of Architecture (160 undergraduate credits). The next accreditation visit for this program will be in 2016.

The NAAB Conditions for Accreditation, including the Student Performance Criteria, and the NAAB Procedures for Accreditation are available on the NAAB website.

Conditions for Accreditation:

naab.org/accreditation/2009_Conditions.aspx

Student Performance Criteria:

naab.org/accreditation/2009_Conditions.aspx
(Part Two (II): Section 1)

Procedures for Accreditation:

naab.org/accreditation/2012_Procedures.aspx

ACADEMIC STANDARDS AND REGULATIONS

Credits Only those students who are officially registered in a course (i.e., by approval of the dean of the School of Architecture or a faculty adviser and notification of the Office of Admissions and Records) will have grades and credits entered on their records.

Satisfactory Progress Toward Degree The bachelor of architecture degree program is a rigorous course of study that seeks to prepare students intellectually and professionally for the investigation and making of architecture. The privilege of studying at The Cooper Union, with the benefit of a 50%-tuition scholarship for all admitted undergraduate students, brings with it important responsibilities. For students in the School of Architecture, these responsibilities include meeting the requirements of a demanding professional curriculum. All students who accept our offer of admission are expected to fully commit themselves to completing the degree requirements in accordance with the curriculum, which has been designed with great attention to sequence, prerequisites and the relationships between course work and the goals of each design studio. All classes that comprise the curriculum are essential to the education of an architect, and must be successfully completed by each student in the year and sequence intended. Students admitted as freshmen will complete the program in five years; transfer students will complete the program in accordance with their placement in the design sequence.

Students who do not successfully complete required courses as outlined in the curriculum will not be permitted to advance to the next year of study until the missing requirement(s) is/are completed. Since make-up classes are not offered at The Cooper Union, missing requirements may need to be fulfilled through coursework taken outside The Cooper Union. The intention to complete requirements outside The Cooper Union requires a meeting with the appropriate academic adviser or faculty member in order to obtain advance approval of the potential substitute course, and to confirm the minimum grade required in order for transfer credit to be awarded. It is the responsibility of the student to locate an eligible course at a college/university that allows part-time/summer study; the approved course will be taken at the student's expense. Students making up courses in this manner will be permitted to register for Cooper Union classes in September only after the Office of Admissions and Records receives a transcript showing the successful completion of these courses. It is in the best interest of each student to complete their coursework here at Cooper Union in conformance with the approved curriculum.

Students must pass a sufficient number of credits each semester to complete his or her degree requirements within five years of study. When dropping or adding courses, a student must follow all degree requirements for their particular year of study.

The normal course load is 15–19 credits per semester. Students are required to be registered for a minimum of 12 credits per semester. Failure to maintain satisfactory progress toward the degree may be grounds for dismissal.

Students are eligible to register for more than 18 credits per semester, but not more than 20, if they have received at least a 3.0 rating for the previous semester.

Transfer Students When admitted, transfer students are offered admission into a specific year of the five-year Design sequence. Placement in the Design sequence is a condition of the offer of admission and not subject to further review or appeal. By accepting the offer of admission, the transfer student agrees to this placement and acknowledges his/her anticipated graduation date. There is no opportunity for transfer students to accelerate through the required Design sequence.

Placement in the Design studio sequence is the only transfer credit evaluation made at the time of the offer of admission. Independently of Design studio placement, transfer students must fulfill all of their B.Arch degree requirements either through transfer credit or by completing required and elective coursework here. Transfer credit evaluation for required and/or elective coursework in the B.Arch curriculum, other than the Design studio, is the responsibility of the individual transfer student. Transfer students are required to seek transfer credit for all other eligible coursework. It may not be possible for transfer students to complete all academic coursework simultaneously with their Design studio requirements. It will be necessary for the matriculating transfer student to successfully complete the design studio to which he or she is admitted, as well as all subsequent studios, as part of his or her degree requirements. The official academic transcript of a transfer student will be reviewed prior to the student's first registration. This review will determine what, if any, additional coursework may be eligible for transfer credit.

Transfer Credit Incoming students who have completed college-level academic work outside The Cooper Union may be eligible to receive transfer credit. Approval of transfer credit will be made by the appropriate dean or faculty based on transcripts from other schools and additional materials, including a course description, a course syllabus with topics and course requirements, a reading list and any quizzes, examinations, papers or projects, etc., that demonstrate the level, content and requirements of the course, as well as the student's proficiency with the course topics. If neces-

sary, a proficiency/placement exam may be administered in certain subject areas. Transfer students must be prepared to present these and other requested materials for each course for which transfer credit is sought. Transfer credit evaluation must be completed by the end of the first semester of study.

Currently enrolled students who find it necessary to complete degree requirements at another institution for transfer credit to The Cooper Union must have appropriate advance approval.

Credit may be granted for work done at another institution by any student upon examination by the dean. This credit is to be recorded after satisfactory completion of one semester's work at The Cooper Union.

Grades used, with their numerical equivalents, are: A (4.0), A- (3.7), B+ (3.3), B (3.0), B- (2.7), C+ (2.3), C (2.0), C- (1.7), D+ (1.3), D (1.0), D- (.7), F (0). The assigned numerical equivalents are used in computing semester and annual ratings by multiplying the numerical equivalent of the grade for each subject by the credits assigned to the subject. The sum of such multiplications for all the subjects carried by a student is divided by the total credits carried by him/her for that period to determine the average rating.

The official meanings for letter grades are as follows:

- A** Outstanding performance
- B** Above average performance
- C** Requirements satisfactorily completed
- D** Minimum requirements met; passing but unsatisfactory
- F** Failure to meet the minimum requirements of a subject
- I** The designation **I** indicates that the work of the course has not been completed and that assignment of a grade and credit has been postponed. An **I** designation is permitted only in cases of illness (confirmed by a physician's letter) or documentation of other extraordinary circumstances beyond the student's control.

The deadline for removal of an **I** designation will be determined by the instructor and recorded at the time the designation is given, but will not be later than two weeks after the start of the next semester. If the **I** is not removed within the set time limit, either by completing the work in the subject or by passing a re-examination, the **I** will automatically become an **F** unless the dean of the School of Architecture extends the time or the student withdraws from school.

The designation of **I** will be granted only with the approval of the dean.

W The student has received permission from the instructor and the dean of the School of Architecture and has withdrawn from a course while passing the course requirements at the time of withdrawal. This permission must be obtained before the end of the

sixth week of the semester. The grade is not included in the calculation of the student's semester rating but remains on the student's transcript. (See Change of Program: Withdrawing from a Course, page 39.) Students are not permitted to withdraw from required classes.

WF The student has received permission from the dean of the School of Architecture and the instructor and has withdrawn from a course while failing the course requirements at the time of withdrawal. This permission must be obtained before the end of the sixth week of the semester. This grade is included in the calculation of the student's semester rating, its numerical equivalent is 0, and it remains on the student's transcript. (See Change of Program: Withdrawing from a Course, p.39.)

When appropriate, certain courses may be designated as Pass/Fail courses.

Pass Requirements completed. This designation is not included in the calculation of the student's semester rating.

Fail Failure to meet the minimum requirements of a course. This grade is included in the calculation of the student's semester rating; its numerical equivalent is 0.

Academic Probation/Final Probation A semester rating below 2.0 and/or a grade less than **C** in Architectonics, Design or Thesis places a student on automatic probation and may be the basis for final probation or dismissal, as determined by the Academic Standards Committee.

A student who receives a grade of **C-** or below in Architectonics, Design or Thesis may be required by the Academic Standards Committee to repeat the studio. The student may also be removed from automatic probation as determined by the Academic Standards Committee.

A student who receives a grade of **D+**, **D** or **D-** in Architectonics, Design or Thesis will be placed on automatic probation and will be required to repeat the studio. The Academic Standards Committee may place the student on final probation. The Academic Standards Committee may also set further academic and/or grade requirements for the student.

A student who receives an **F** in Architectonics, Design or Thesis will be placed on final probation and will be required to repeat the studio. The student will be required to receive a grade of **C+** or better in the repeated class. A student who fails to meet this condition may be dismissed by the Academic Standards Committee.

A second probation may result in final probation or the dismissal of the student. The Academic Standards Committee may place a student on final probation.

A student placed on automatic probation may be subject to academic requirements as determined by the Academic Standards Committee.

A student on final probation who receives a semester rating below 2.0 and/or a grade less than **C** in Architectonics, Design or Thesis at any point in the remainder of his or her academic career in the School of Architecture will be immediately, automatically and permanently dismissed from The Cooper Union with a forfeit of the right of appeal. Automatic dismissal on final probation unconditionally and irrevocably terminates a student's academic career in the School of Architecture.

A student on probation may not carry more than 18 credits a semester.

Each student is responsible for his or her total accomplishment and for being continuously aware of the standards defined in the preceding paragraphs. Students whose work by mid semester indicates possible failure to meet the minimum standards of a course, including excessive absences, should arrange to meet with their respective faculty to address the matter in detail.

A student must have a cumulative grade point average of 2.0 or better in order to graduate from the School of Architecture.

A student may not repeat any Design studio (or Architectonics and Thesis) more than once.

Any student who fails Arch 151 (Thesis) twice will be dropped automatically from the program.

Additional credits for repeated Design studio (including Architectonics or Thesis) do not count towards the 160 credits required for the B.Arch degree.

Change of Grade A change in an official grade of record cannot be made by the dean of admissions and records without the express consent of the dean of the School of Architecture. The dean of admissions and records will automatically convert an **I** designation to an **F** if an official change of grade is not submitted within the two-week deadline after the start of the following semester. Grade changes will not be accepted after one calendar year has elapsed from the completion of the course.

Change of Program

Adding a Course A student is permitted to add a course only during the first week of a semester, during the drop/add period, and only with the dean's approval.

Adding a course after the drop/add period is not permitted even if the student has been attending the class.

Dropping a Course A student may drop a course during the first week of the semester, during the drop/add period, with the dean's approval. A student who wishes to drop a course may be required to add equivalent credits in another course as needed to maintain satisfactory progress towards the degree.

A course dropped during the first week of the semester will be deleted from the transcript.

Withdrawing from a Course After the drop/add period a student may withdraw from a course through the sixth week of the semester, with the dean's approval. If the student is passing the course at the time of withdrawal, a grade of **W** will appear on the transcript. If the student is failing the course at the time of withdrawal, a grade of **WF** will be recorded. It is the student's responsibility to obtain the necessary permission from the school and to notify the instructor in order to withdraw from a course.

Failure to attend a class does not constitute withdrawal; a student who fails to attend a class without formally withdrawing will earn a grade of **F** in the course. A student may not withdraw from a course to avoid receiving a failing grade.

A student is not permitted to drop or withdraw from a course if doing so would impede satisfactory progress towards the degree.

LEAVE OF ABSENCE

Mandatory Leave of Absence A student's academic record will be reviewed by the Academic Standards Committee if it meets any of the criteria for Academic Probation/Final Probation (see page 38 for more information).

If the student is permitted to continue, the student will do so as per the instructions of the Academic Standards Committee. A student who is required to repeat studio (Architectonics, Design or Thesis) may also be required to meet other conditions set by the Academic Standards Committee. If it is not possible for the student to make significant progress towards the degree requirements in the semester prior to repeating the studio course (as determined by the Academic Standards Committee and/or the dean), the student will be placed on a mandatory leave of absence for one semester and will resume his or her studies in the following semester by repeating the required studio and enrolling in other classes for a total registration of at least 12 credits. The student's registration must be approved by the dean.

Discretionary Leave of Absence Students who have completed at least one year of study may request an interruption of their studies for a Discretionary Leave of Absence. A written request for the Leave must be submitted to the associate dean. A Discretionary Leave of Absence for up to one year (2 semesters) with an automatic guarantee of reinstatement may be granted to students in good academic standing who are making satisfactory progress toward the degree.

A request for a Discretionary Leave beginning in Fall semester must be made before April 15. A request for a Discretionary Leave beginning in Spring semester must be made before November 15. Approval for a Discretionary Leave is neither automatic nor guaranteed.

Returning from a Discretionary Leave Students on a Discretionary Leave must notify the associate dean of their intention to return at least four (4) weeks prior to the registration period for the semester of their intended return. The dean must notify the registrar to reactivate the student record.

Medical Leave of Absence A student who must interrupt his/her studies for medical reasons must submit a written request for a Medical Leave of Absence to the associate dean along with supporting documentation, which must include a letter from the treating health care provider.

Returning from Medical Leave A student on a Medical Leave of Absence must notify the associate dean of his/her intention to return at least eight (8) weeks prior to the semester of the student's intended return. The student must also provide a letter from his/her treating health care provider that he/she is ready and able to return to school. The dean must notify the registrar to reactivate the student record.

Compulsory Medical Leave of Absence The Cooper Union seeks to foster a safe and peaceful campus environment (including, but not limited to its classrooms, laboratories, studios, shops, and dormitories) that nurtures its students' well-being and allows them to focus on their studies.

The professional degree programs at The Cooper Union are exceptionally rigorous courses of study that require a student's full commitment of time and effort and involve collaborative work in shared studios and laboratories. Additionally, in light of the highly specialized technical skills needed to run equipment in its shops and laboratories, The Cooper Union has the highest concern for safety on its premises and has appointed staff and faculty to supervise these facilities. Such concerns are carefully balanced with the institution's historic commitment to student rights.

If a staff or faculty member notifies the dean or associate dean that a student's conduct, actions or statements indicate that the student: (i) poses a threat of harm to the safety of others (either directly or through an inability to safely perform any necessary functions as a student); and/or (ii) is engaged (or may engage) in behavior or conduct that is disrupting the academic experience of others on campus, the dean will promptly assess such concerns and determine whether there is a problem, the nature, duration and severity of the problem, and the probability that such harm or disruption may occur. The associate dean of architecture or the dean of students will promptly meet with the student to analyze the situation. If a medical situation is involved, the student may be asked to provide medical information from a healthcare provider in order to clarify the situation as necessary. Considering all the information, the dean will determine if a problem exists and, if so, whether a reasonable modification of policies, practices or procedures or the provision of auxiliary aids or services can appropriately mitigate the problem. If so, following such an accommodation /modification, the student will be permitted to continue with his/her studies. At any point during the investigative process, the student will have the right to take voluntary Medical Leave of Absence following the procedure stated above.

If an accommodation/modification cannot sufficiently alleviate the risk/disruption to allow the student to remain actively enrolled, and the student is not able or willing to take a voluntary Medical Leave of Absence, the associate dean may recommend to the Academic Leadership Team that the student be placed on Compulsory Medical Leave of Absence. The student will be sent a letter notifying him or her of the associate dean's recommendation for a Compulsory Medical Leave of Absence, the basis for such a recommendation, and inviting the student to a hearing on this matter. This hearing—granting the student the opportunity to respond to this recommendation—will be conducted by one member of the Academic Leadership team and one other officer of The Cooper Union and will be held no sooner than five (5) days after the letter is sent to the student. If necessary, the student may request accommodations (e.g., modifications to policies, practices, or procedures; the need for an auxiliary aid or service) to participate in the hearing. At this hearing, the student may submit additional medical records and/or other appropriate information/documentation. The hearing officers will decide whether to accept the recommendation, reject it, or modify it and will inform the student within 24 hours of their decision, in writing. The hearing will be digitally recorded.

A student may be temporarily suspended from the institution prior to this hearing.

A student may be placed on Compulsory Medical Leave for either a semester or a year, depending on the nature of the circumstances of the leave, submitted medical documentation, and the student's academic program. Students placed on Compulsory Medical Leave will be asked to provide an evaluation from a physician of The Cooper Union's choosing attesting to their medical readiness to resume their studies, with or without accommodation.

Appeal Process A student who has been the subject of a hearing under these procedures may appeal the decision of the hearing committee within three business days by writing a letter to the vice president for finance, administration & treasurer/equal opportunity officer or dean of architecture setting forth the reasons why the appeal is being made. The vice president will convene an Appeal Board within three days of receiving the appeal letter. The board will consist of the vice president or her designee and one member of the Presidential Leadership Team who was not involved in any way in the prior hearing. The Appeal Board shall limit its review to these issues:

—does the record show that the party had a full and fair opportunity to present his or her case?

—does the solution imposed achieve the proper balance between maintaining a safe and peaceful campus environment and respecting the rights of the student to continue his or her education? After considering the record and the letter of appeal, the Appeal Board may:

Accept the decision of the hearing committee;

Order a new hearing in keeping with the Appeal Board's instructions;

Reverse the hearing committee's decision in its entirety;

Accept the hearing committee's decision but modify the solution.

If the Appeal Board accepts the decision of the hearing committee, whether or not it modifies the terms of the compulsory medical leave, the matter shall be deemed final.

Readmission Students who have withdrawn from the School of Architecture after having completed at least one year of study at The Cooper Union must reapply to the school to be considered for readmission as a transfer applicant.

Students who have withdrawn from school before they have completed one year of study at The Cooper Union must reapply through the freshman admission procedure.

Students who have been dismissed by the Academic Standards Committee or to whom the Academic Standards Committee has given permission to withdraw in lieu of dismissal and are eligible for readmission must apply within two years to the chair of the Academic Standards Committee before May 15 for admission

in September and before November 15 for admission in January. They should be prepared to demonstrate a change from the circumstances that warranted their dismissal.

Former students who have been dismissed by the Academic Standards Committee or to whom the Academic Standards Committee has given permission to withdraw in lieu of dismissal and who have been out of The Cooper Union for more than two years (four semesters) at the time of anticipated return must apply through the regular admission procedure. If offered admission, previous Cooper Union credits earned may be evaluated for transfer credit.

Residence A candidate for a degree must be enrolled and in residence during the entire academic year immediately preceding the granting of the degree.

Graduation To be eligible for graduation, a student must complete the minimum number of credits listed for his or her curriculum and must spend a minimum of four semesters in full-time resident study at The Cooper Union.

Students are responsible for their total accomplishment and for being continuously aware of the standards for graduation.

Graduation requirements as outlined in this catalog are guidelines that are subject to change.

MASTER OF ARCHITECTURE II POST-PROFESSIONAL DEGREE CURRICULUM

Aims and Objectives The Master of Architecture II post-professional degree program was launched in 2009 to extend the vision and intellectual rigor of the undergraduate program and allow a further development of the school's preeminent position in the education of architects.

The Master of Architecture II is a design research, post-professional degree open to applicants with a first professional degree in architecture (Bachelor of Architecture or Master of Architecture I) from a program accredited by the NAAB or equivalent accrediting agency in another country. The program is intended for professionals who wish to continue in practice with higher research and design skills in those areas in which the program offers specialization. It additionally prepares those with first professional degrees who wish to develop parallel careers in teaching and/or continue to engage in research toward an appropriate Ph.D. degree at another institution.

The program seeks to address modern and contemporary issues in the practice and theory of architecture and urbanism, incorporating considerations from history as well as the present condition of globalization and the continual emergence of new scientific developments and technologies.

The program offers concentrations in one or a combination of three areas: theory, history and criticism of architecture, urban studies and technologies. Prospective students will declare their area(s) of concentration during the application process. Applicants are required to complete a minimum of one year of work experience after obtaining their first professional degree before applying to the program.

The design studio is a major component of the program; students from all three concentrations will work together on a common program under the direction of a studio critic during the first two semesters. Seminars will address issues particular to the concentrations as well as other topics making use of the interdisciplinary resources offered by The Cooper Union.

Theory, History and Criticism of Architecture Considers questions concerning the theory and criticism of modernism and contemporary architecture, the philosophy and aesthetics of architecture, the mediatization of architecture and broader cultural and historical issues through the critical readings of texts, the development of critical projects and a written thesis.

Urban Studies Addresses issues central to the design, planning and development of cities and regions, including study of the morphological, social and cultural effects of globalization; the survival of local urban cultures; redevelopment of central cities, suburbs and exurbs; and issues specific to New York and comparative cities.

Technologies Focuses on technological issues of architectural design, representation, planning and production, such as the impact of new information technologies, new materials and manufacturing processes; hardware and software development; mapping and modeling techniques; and the technologies of fabrication as they influence new design strategies. This area focuses as well on the economic, ethical and technological dimensions and design potentialities of sustainability and developments in new structural systems, materials and building assemblies.

Program Requirements All applicants to the Master of Architecture II program must 1) hold the professional degree of Bachelor of Architecture (B.Arch.), the professional degree of Master of Architecture (M.Arch. I) or an equivalent accredited professional degree in architecture from a foreign institution; and 2) have completed a minimum of one year of work experience after obtaining their first professional architectural degree. The program is structured to be completed in two full-time consecutive semesters with a final thesis semester during the subsequent summer session. The Fall semester runs from September-December (after Labor Day until approx. Christmas), the Spring semester runs from January-May (after Martin Luther King Jr. Day until approx. The Cooper Union's Commencement date), the Summer semester runs from June-early September (after Memorial Day until the date of the Master of Architecture II final Thesis review and exhibition opening during the second week of September). Final thesis presentations will take place during the first week of the fall semester following the student's year of study. Graduate students must complete all 30 credits of the Master of Architecture II degree requirements in full-time continuous resident study at The Cooper Union.

Courses		Credits
Semester I (Fall)		
Arch 411	Graduate Research Design Studio I	6
Arch 401	Proseminar	2
FA100R	Introduction to Techniques	0
	Seminar in concentration	2
	Seminar out of concentration	2
Total Credits First Semester		12
Semester 2 (Spring)		
Arch 412	Graduate Research Design Studio II	6
Arch 402	Thesis Research Tutorial	2
FA100R	Introduction to Techniques	0
	Seminar in concentration	2
	Seminar out of concentration	2
Total Credits Second Semester		12
Semester 3 (Summer)		
Arch 413	Graduate Thesis (written or studio)	6
Total Credit Requirement for Master of Architecture II Degree		30

Thesis In April of the spring semester prior to advancing to Arch 413 Thesis, each student will be required to present an elaboration of his or her thesis topic and program for review and acceptance by the faculty. Final thesis presentations will be made during the first week of fall semester following the student's year of study.

Seminars Out of Concentration It is recommended that students register for courses originating in the graduate program (Arch 482, Arch 483 and Arch 485) to satisfy their out-of-concentration seminar requirements.

Graduate courses in the Albert Nerken School of Engineering as well as select upper level undergraduate elective courses could be made available to Master of Architecture II students with prior permission from the student's academic adviser and the individual course instructor. Undergraduate courses may be used to satisfy requirements for out-of-concentration coursework only.

ACADEMIC INTEGRITY

Built upon Peter Cooper's vision of education, The Cooper Union from its inception has been dedicated to the highest ethical standards. The School of Architecture, founded on principles of independent and exploratory thought, maintains that individual creativity within a willing community is a profoundly social act. In fostering a context of intellectual rigor, the program gives emphasis to a broad spectrum of cultural and ethical concerns which are of significance in the preparation of students for a professional degree and their role in society as practicing professionals of intelligence, creativity and integrity.

Authorship Acts of academic dishonesty are extremely serious violations of both the spirit and the substance of this community. The Academic Standards Committee of the School of Architecture will review acts of academic dishonesty including cheating, plagiarizing or the submission of work that has not been prepared by the person claiming authorship. Such acts are viewed as extremely serious violations, punishable by probation, suspension or dismissal. The action of the Academic Standards Committee in such cases will become part of the student's permanent academic record.

The Studios/Studio Culture Central to maintaining a creative environment for intellectual investigation and intuitive exploration are the shared design and computer studio spaces on the third and seventh floors of the Foundation Building. Students must be aware of and observe all policies and conditions for the use of the studios (which are distributed at the beginning of each academic year). Students are required to be present in studio for all hours that their design studio meets and to develop their work in the studio.

In the studios, students work together as a community of individuals. Here, students and faculty from all years engage in a process of rigorous inquiry, discussion and critique, freely sharing knowledge, ideas and methodologies. Students study the principles and works of architecture that have contributed to the betterment of the human condition in the development of their own projects. Students of the upper years serve as mentors for the lower years. Diversity and balance are critical values in generating an academic ambiance where humanistic ideals and ethical views serve as a constant reference for individual growth and development. The social and intellectual environment thus created is considered a vital part of the students' experience at The Cooper Union.

As articulated by our Architectonics (first-year Design studio) faculty: Educational institutions are the stewards of discipline, they are the crucibles in which the living form of a discipline is transferred through the generations. Many forms of resource are

marshaled toward animating this stewardship; the primary resource, in fact the meaning and purpose of education, lies in the community of teachers and students at the heart of an institution. Young minds filled with endless possibilities come searching for a sanctuary in which they can be inspired, strengthened and tempered by listening to and working with voices of wisdom, knowledge and experience. There is no higher calling for an educational institution than the stewardship and advocacy of this community. The particular modes of knowledge that form the discipline of architecture are to a large extent embodied knowledge; they are acquired through a combination of intense study and present tense creativity. The education of an architect requires a studio culture that encourages the faculty and students to explore their creativity in teaching and learning, it requires crafting and maintaining an evolving studio environment that cultivates the personal imagination. Individual creativity within a willing community is a profoundly transformative act. As each moment contains the potential for reinvention, "school" is not a means to a predetermined end, but rather it is a place for significant works, for research and exploration, a place of creative urgency, for people and their works to listen to each other. Great educational institutions are great communities: physically, geographically and intellectually, the studio is the center of the community at the School of Architecture. The myriad personal and public exchanges that form our studio culture lead to new ideas, new forms of expression and movements of thought that ultimately enrich our discipline and our humanity.

Annual Exhibition of Student Work The End of Year Show is a major event, exhibiting student work developed during the academic year to the academic and professional communities and the public at large. It is an opportunity to present the pedagogical framework of the school and faculty and to celebrate the rigor and diversity of the student work. Preparation of exhibition spaces - lobbies, halls and classrooms of the third and seventh floors, and the Houghton Gallery - and hanging the work is a tremendous task that must be accomplished in the very short period of time between the end of classes and commencement. All students are required to make requested projects available for the exhibition and are expected to fully participate in the installation.

In addition to the Annual Exhibition, individual student work may be requested for other purposes (other exhibitions, accreditations, etc.). Students are required to provide requested projects or other materials, which will be returned to them in a timely manner. While student work is to be available for these purposes, work produced by students as part of their coursework remains their property.

Students are required to sign a release form at the start of their studies granting the school permission to use, copy, publish or distribute, perform or publicly display, create derivative works, and incorporate into compilations or collective works the works of authorship created during their enrollment as a student at Cooper Union in any form, format or media now known or later developed or created in the future, for educational purposes and for promoting, marketing and advertising Cooper Union and its educational services worldwide, without compensation. The student retains the copyright to the work.

FACILITIES AND RESOURCES

The facilities of the School of Architecture are housed on the second, third and seventh floors of the Foundation Building, initially completed in 1859 and now a National Historic Landmark widely referred to as one of New York City's great monuments. In 1974, John Hejduk, the first dean of the School of Architecture, designed a major alteration of the interior. In 2002, the restoration of the brownstone exterior was completed after two years of work.

The Studios All students in the School of Architecture are provided individual workspace on the third floor within a shared studio. With the first through fourth years sharing a single large studio and the fifth-year thesis class and graduate students in smaller studio spaces, a unique environment fostering cross-fertilization between classes and individual students is maintained. Students are provided with individual studio workspace with individual and shared tables for drawing, work, reference, model building, etc. The school does not support the principle or practice of continual 24-hour studio access. Studios are generally open Monday–Thursday 7:30 am–2 am, Friday 7:30 am–midnight, Saturday 8 am–midnight, and Sunday noon–2 am.

Computer Studio The School of Architecture Computer Studio on the seventh floor of the Foundation Building is specifically intended to support a design curriculum that recognizes the use of computing as an instrument of investigation and practice and which urges students to explore its formal and cultural implications. The facility utilizes both Macintosh and Dell Precision PCs (including high-end multiple-processor rendering stations), scanning and printing capabilities and two large-format plotters. Software includes an array of imaging, drawing, drafting and 3D modeling and rendering programs. This facility is open to all students of The Cooper Union. Considered integral to the activities of the design studio, the computer studio is open generally whenever the design studios are open, giving students access an average of 17 hours a day. A student monitor trained to assist in the effective use of the facility and to do simple troubleshooting on the hardware is present whenever the center is open.

In addition to the School of Architecture's 3D printer and laser-cutter, other three-dimensional output capabilities include a laser-cutter in the School of Art and a CNC machine and rapid prototype machines in the School of Engineering.

Computing facilities designed to serve the specific needs of the Schools of Art and Engineering are open for use by students of the School of Architecture.

Lecture Room A small auditorium on the third floor is used for lecture classes and invited lecturers. Special lectures are open to all interested Cooper Union students.

Shop An outstanding all-college sculpture shop is located on the fourth floor. Integral to both the program and pedagogy of the School of Architecture, the shop is equipped for projects in wood, metal, plastics, plaster and clay, and includes a bronze casting foundry. For a complete description of the sculpture shop facility, please refer to the School of Art section (page 58).

Study Collection The School of Architecture has fostered the growth of a non-circulating Study Collection of books and other visual material that are not otherwise accessible through the Cooper Union library system, sometimes including rare or limited edition items, often on loan from private collections. Students make use of the room for quiet reading and study. The room is also used for seminar classes and meetings.

School of Architecture Archive The School of Architecture Archive is responsible for the ongoing collection, records and storage of student work, and now has documentation of student work produced at the school since 1983. This provides an invaluable record of the pedagogy of the school that can be used for exhibitions, publications and student research. In addition, the Archive's Blueprint Collection, Lantern Slides, New York Postcard Collection, Stanley Prowler Slide Collection, New York City Waterfront Archive, Limited Edition Books and rare books are resources available for use by students and faculty for research and study. The Archive also manages the loan of analog and digital video cameras as well as other photographic equipment for student use on class projects.

The Cooper Union Institute for Sustainable Design The Cooper Union Institute for Sustainable Design seeks to provide the greater Cooper Union community - architects, engineers and artists - with the cross-disciplinary knowledge and skills that are necessary to create a sustainable society. We define a "sustainable society" as one that prospers because its economy, social practices, physical infrastructure and engineering systems all work in harmony with the ecological dynamics and resource limitations of the earth. More detailed information about the Institute for Sustainable Design and its programs, its projects and its activities, is available on The Cooper Union website: cooper.edu/isd

41 Cooper Square In September 2009, The Cooper Union opened its first new academic building in fifty years at 41 Cooper Square, opposite the landmark Foundation Building. This building houses the School of Engineering and the Faculty of Humanities and Social Sciences, studios for the School of Art, classrooms and computing studios for all students, and a shared gallery and auditorium. The first academic building to achieve the LEED Platinum status, 41 Cooper Square provides all students of The Cooper Union with access to state-of-the-art tools to pursue creative and original research and design in the course of their learning.

Personal Laptops The School of Architecture Computer Studio is open to all architecture students and is equipped with all of the hardware and software necessary for their work and study. We recommend that students who wish to purchase their own laptop computers complete their first year of study before making a purchase in order to fully test a range of programs and platforms. Current students have selected a variety of laptop models in both Mac and PC platforms for individual use. The Cooper Union assumes no liability for personal laptops. Students who use/bring their personal laptops to school are solely responsible for the safety and security of their equipment and are strongly advised to secure their laptops in their lockers when not in use.

Communication Email is an essential form of communication at The Cooper Union. Each new student is assigned a Cooper Union email address during Orientation. It is the responsibility of all students to actively and regularly check and use their Cooper Union email in order to receive, in a timely manner, official school announcements, important information about registration, messages of general interest about events, exhibitions and programs, safety updates, policy notifications, etc. As The Cooper Union continues its transition to an online administrative system, linked solely to The Cooper Union email address, this line of communication becomes even more vital. In addition, wireless internet access is available throughout The Cooper Union and can only be accessed via a Cooper Union email address and password.

COURSES

Students should consult official class lists for courses offered in a given semester. There is no assurance that a course listed in this catalog will be given every year.

Be advised that each school offers certain electives that are open to all students; consult each school's course listing.

Undergraduate

DESIGN (Required)

Arch 111 A-B Architectonics

Introduction to the study of architecture; investigation of the interrelationships of space, structure and visual composition. Exploration of the syntax of architecture. Models and orthographic drawing.
4 credits per semester

All Architectonics students are required to take an Introduction to (Shop) Techniques course.
1 credit per semester

Arch 121 A-B Design II

Projects comprise elemental architectural programs wherein the student is required to sustain the formal investigations of first year while integrating the complexities of program, context and site. Spatial, structural, material, environmental and visual design are integrated. Emphasis is placed on communicating concepts through drawings and models.
5 credits per semester

Arch 131 A-B Design III

Study and analysis of historical precedents followed by a sequence of design problems of increasing complexity. Emphasis on the planning of buildings and the interrelationships among form, structure, detail and technologies.
5 credits per semester

Arch 141 A-B Design IV

Investigation of urban programs and sites requiring the integration of form, structure and space. Examination of the complexities implicit in the resolution of urban problems. Analytic studies and explorations generate specific programs for development of each project. Emphasis given to large-scale integrations and the impact of urban transformations upon existing fabric.
5 credits per semester

Arch 151 A-B Thesis

A synthesis of four years' educational experience. The choice of the area of study is the responsibility of the student. The scope of the problem is defined by each student, who also decides on his or her method of exposition. Problems are analyzed and studied with the aid of faculty from each discipline and by visiting critics.
6 credits per semester

MATHEMATICS (Required)

Arch 103-104 Calculus and Analytic Geometry

Emphasis on topics that involve the mathematical approach to geometrical and physical relationships and on basic concepts and applications of calculus and functions of one and two variables.
3 credits per semester

STRUCTURES (Required)

Arch 122 A-B Structures I

A qualitative examination of the behavior of structures. Characteristics and development of the stresses generated from the simple to the complex. A study of the materials of construction used in structures.
2 credits per semester

Arch 132 A-B Structures II

The study of strength of materials is applied to the quantitative design procedures for wood and steel structures. Students complete individual projects in wood and low-rise steel structures.
2 credits per semester. Prerequisites: Arch 103/104, Ph 165/166 and Arch 122 A-B Structures I

Arch 142 A-B Structures III

The design of reinforced concrete using stress methods and plastic design is combined with individual projects in low-rise concrete structures. Elements of soil mechanics and soil investigations are included (Fall only) in foundations design.
2 credits per semester. Prerequisite: Arch 132 A-B Structures II

Arch 152 Structures IV

Intensive seminars are completed on prestressed concrete, wind and earthquake design for tall structures and special structures, while the student becomes the structural consultant for individual assignments for the structural solution of real architectural projects covering prestressed, high-rise steel and concrete buildings and shells.
2 credits. Prerequisite: Arch 142 A-B Structures III

ENVIRONMENTAL TECHNOLOGIES (Required)

Arch 134 A-B Environmental Technologies

Environmental and life safety systems as they affect program and building form, including mechanical (heating, cooling, ventilating), water supply and disposal, electrical, lighting, acoustics, vertical transportation, communication, security and fire protection. Principles of sustainability. Passive and active systems.
3 credits per semester

BUILDING TECHNOLOGY (Required)

Arch 135 A-B Building Technology

Materials and methods of architectural construction, lectures, examination and discussion of classic as well as current building techniques. Students assemble full-size "mock-ups" of details for class study germane to their design classes. In general, this course does not separate "construction" from "design" but attempts to supplement, by means of a more detailed study of design assignments. Field trips may be made to buildings under construction.
2 credits per semester

DRAWING (Required)

Arch 114 A-B Freehand Drawing

Basic drawing skills, composition and color perception. Studio and homework assignments.
3 credits per semester

Arch 118 A-B Computer Applications and Descriptive Geometry

Descriptive geometry as a science of graphical representation of three-dimensional lines, surfaces and solids with emphasis on development of drawing and drafting skills. Understanding how graphical and construction information is represented in the computer, how information is represented in drawings, nature of the overlap between the two. Develop a critical facility to appreciate limitations and strengths of representational techniques. Computer as a mechanism for communication and research.
2 credits per semester

HISTORY OF ARCHITECTURE (Required)

Arch 115 A History of Architecture I

(Sem. I) An introduction to the study of the concepts, designs and built examples of architecture from antiquity through approximately the third century C.E. Selected projects from throughout the world will be analyzed in terms of planning, design, structure, technique, function, social context and meaning.
3 credits

Arch 115 B History of Architecture I

(Sem. II) An introduction to the study of the concepts, designs and built examples of architecture from approximately the fourth through the 15th century. Selected projects from throughout the world will be analyzed in terms of planning, design, structure, technique, function, social context and meaning.
3 credits

Arch 125 A History of Architecture II

(Sem. I) An introduction to the study of the concepts, designs and built examples of architecture from approximately the 15th through the 18th century. Selected projects from throughout the world will be analyzed in terms of planning, design, structure, technique, function, social context and meaning.
3 credits

Arch 125 B History of Architecture II

(Sem. II) An introduction to the study of the concepts, designs and built examples of architecture from approximately the 18th through the 20th century. Selected projects from throughout the world will be analyzed in terms of planning, design, structure, technique, function, social context and meaning.
3 credits

Arch 133 Introduction to Urban History and Theories

An introduction to Urban History and to the principles, concepts, and Theories of Urbanism, from antiquity to the present, with an emphasis on the 20th Century urbanism.
2 credits

ADVANCED CONCEPTS AND TOPICS

(Required)

Arch 205 Advanced Concepts

This course is intended to be an advanced course dealing with the relationship between architectural space and some other discipline in the humanities. The course deals with an interdisciplinary approach toward a new poetic and the phenomenology, psychology and metaphysics of space. (After fulfilling the Arch 205 Advanced Concepts degree requirement, a student may enroll in other additional Arch 205 Advanced Concepts classes for elective credit.)

2 credits

Arch 225 Advanced Topics in History, Theory, Criticism

Advanced study in history, theory, criticism of architecture, urbanism and technology. (After fulfilling the Arch 225 Advanced Topics degree requirement, a student may enroll in other additional Arch 225 Advanced Topics classes for elective credit.)

2 credits. *Prerequisites:* Arch 115 A-B History of Architecture I, Arch 125 A-B History of Architecture II and Arch 175 Modern Architectural Concepts or permission of the instructor

PROFESSIONAL (Required)

Arch 143 A-B Construction Management

Introduction to construction management principles, techniques and methods including scheduling, cost-estimating, planning and controlling construction process.

1 credit per semester

Arch 154 A-B Professional Practice

The role of the architect in relation to the community, client, builder, worker and engineer. Societal, ethical, legal and personal obligations. Office organization and administration.

1 credit per semester

ELECTIVE COURSES

Arch 153 Town Planning

A modernist response to the problems of large metropolitan cities. Taking a historical perspective, the course will analyze town planning responses of specific architects and groups for cities such as Paris, London, New York, Vienna and Chicago, questioning the cultural determinants that made town planning a modernist stance.

2 credits per semester

Arch 165 Analysis of Architectural Texts

Introduction to analytical methods and techniques and their relationship to synthetic activity in the design process.

2 credits. *Prerequisite:* permission of instructor

Arch 175 Modern Architectural Concepts

The concepts and generators of form and space relative to architecture of the 20th century are explored and investigated.

2 credits. *Prerequisites:* Arch 115 A-B History of Architecture I, Arch 125 A-B History of Architecture II or permission of instructor

Arch 176 Theory of Landscape Architecture

Lecture/studio course explores the interrelationships of nature, site design and built form. Focus on basic elements of nature addressed ideologically, poetically, culturally and practically through an interdisciplinary study of works by selected artists, writers, landscape architects and architects. Work with landscape fundamentals, continue on to more complex issues of natural processes and aesthetics, such as atmosphere, ephemerality and time, and of site planning, such as site selection, topography, drainage, ecology and climate, especially as related to architecture and art in the land.

2 credits. Open to all students

Arch 177 Computer Graphics, Image Processing and Vision

Introduction to basic concepts of spatial description and manipulation by computer enables student to use these techniques as an aide in problems of formal spatial drawing with a computer. Examination of the issues of "hand-eye axis" in computer-based drawing and "paint" systems as well as more abstract algorithmic methods of drawing. Image acquisition and transformation by computer, its relation to computer vision and control of robots and machines which build will be another area of emphasis. Survey of a wide variety of applications including typeface design, page layout and make-up, animation and interactive control of video systems.

2 credits. Open to all students

Arch 178 Advanced Drawing Seminar

The course will focus on the dialogue between figuration and abstraction. Students will be expected to plan and elaborate an ongoing series of drawings. The class will meet on a seminar basis to critique work in progress and to discuss issues relevant to the language of drawing. There may be an open studio available for those students who wish to pursue drawing from the model. However, students will be encouraged to investigate a broad spectrum of imagery and materials.

2 credits. *Prerequisite:* permission of instructor

Arch 185 Crossings

This project-oriented studio course will explore and investigate developments in architecture, art, literature and engineering that reinforce or reintroduce the interrelationships of these diverse disciplines including the implications of recent scientific developments that cross and disrupt established boundaries and foundations of compartmentalized disciplines, giving us new insights into the natural processes within the rich diversity of nature. A revitalized and stimulating field of inquiry is now offered to architects, artists and engineers, with technological and cultural implications.

2 credits. *Prerequisite:* permission of the instructor

Arch 185 Crossings The Feltman Seminar

This seminar will investigate the principles, aesthetics and methodologies of lighting perception and design. The Feltman Fund, a gift to the school, makes this seminar possible and supports its chairs.

2 credits. Open to all students

Arch 190 Structures Elective

The reason for the unique structural solutions for existing building structures is presented in depth. These studies will include structures of all sizes subject to gravity, wind and/or seismic forces. The path followed to arrive at the best solution is analyzed in open discussion. The correlation between the architectural, structural and mechanical needs, as well as considerations related to the actual erection of these structures, is presented.

2 credits. *Prerequisites:* Arch 122 A-B, Arch 132 A-B, Arch 142 A-B, Arch 152 or permission of the instructor

Arch 194 Environmental Technologies Elective

Advanced study in environmental issues to include such topics as cultural and environmental sustainability, resource allocation, new materials and methods, global networks, urban growth, etc., as they relate to architecture on many scales.

2 credits. *Prerequisite:* Arch 134 A-B Environmental Technologies or permission of the instructor.

Graduate

*Required for students in all concentrations.
All courses are one semester.*

Arch 401 Proseminar

An introduction to research in architecture and urbanism: theory, research (methods and techniques) and writing, for M.Arch. II degree students only. Selected readings in historiography, theory, criticism and design and methods. Includes lectures and seminars by faculty and visiting specialists in the fields of history and criticism, architecture and urban design methods, research in representational techniques, digital technology, etc. Presentations by each student in the program will encourage interdisciplinary comparison and shared knowledge.
2 credits

Arch 402 Thesis Research Tutorial

Individual thesis research conducted under the supervision of an adviser or advisers leading to the preparation of a Thesis Prospectus required for advancement to the third semester of the program.
2 credits

Arch 411 Graduate Design Research Studio I

The Design Research Studio 1 will establish a general problem incorporating aspects of architectural, urban and technological design research to be undertaken by the class, with each student contributing to his or her specific area of expertise. The studio will include seminars by invited guests on topics relevant to the program's principal areas of study.
6 credits

Arch 412 Graduate Design Research Studio II

Individual design projects within general guidelines established by the faculty, each emphasizing the special area(s) of research of the student.
6 credits

Arch 413 Graduate Thesis

The choice of the area of study is the responsibility of the student. The scope of the project and method of exposition is defined by each student in consultation with their thesis adviser and must be approved prior to the beginning of the summer term on the basis of a thesis prospectus presented to the group of faculty. Students will develop a mutually agreed upon schedule for meetings with their adviser and for regular project reviews.
6 credits

Arch 482 Graduate Seminar in Technologies

Selected topics in the advanced study of technological issues in architectural design, representation, materials, planning, production and construction. Open to undergraduate fourth- and fifth-year architecture students as an elective with permission of the instructor and the dean.
2 credits per semester

Arch 483 Graduate Seminar in Urban Studies

Selected topics in the advanced study of urban form including readings and case studies in urban analysis, global development, historic preservation and typological transformation. Open to undergraduate fourth- and fifth-year architecture students as an elective with permission of the instructor and the dean.
2 credits per semester

Arch 485 Graduate Seminar in Theory, History and Criticism of Architecture

Selected topics in the advanced study of the theory and criticism of modernism and contemporary architecture, the philosophy and aesthetics of architecture, the mediatization of architecture and broader cultural and historical issues, through the critical readings of texts as well as case studies. Open to undergraduate fourth- and fifth-year architecture students as an elective with permission of the instructor and the dean.
2 credits per semester

FACULTY

Administration

Elizabeth O'Donnell, *Acting Dean*

Monica Shapiro,
Administrative Associate

Emmy Mikelson,
Assistant to the Deans for Public Programs and Research

Steven Hillyer, *Director,
Architecture Archive*

Patrick McElnea, *Collections Assistant,
Architecture Archive*

Full-Time Faculty

Professors

Diana I. Agrest
Dipl. Arch., School of Architecture and Urbanism, University of Buenos Aires; Université de Paris: Ecole Pratique des Hautes Etudes VI Section; R.A., F.A.I.A.

Diane H. Lewis
B.Arch., The Cooper Union;
The American Academy in Rome; R.A., F.A.A.R.

Anthony Vidler
B.A. Hons., Dipl.Arch., Cambridge University; Ph.D., Delft University of Technology (The Netherlands)

Proportional-Time Faculty

Professors

Kevin Bone
University of Colorado;
Wright/Ingraham Institute;
B.Arch., Pratt Institute;
Royal Danish Academy of Art; R.A., F.A.I.A.

Anthony Candido
Georgia Institute of Technology; B.Arch., Illinois Institute of Technology

David Gersten
New York Institute of Technology; B.Arch., The Cooper Union

Roderick Knox
B.Arch., B.F.A., The Cooper Union; M.Arch., Harvard University; R.A., N.C.A.R.B.

Elizabeth O'Donnell
University of Minnesota;
B.Arch., The Cooper Union; R.A.

Stephen Rustow
B.A., University of Rochester; M.Arch., M.G.P., Massachusetts Institute of Technology; R.A., N.C.A.R.B.

Sean W. Sculley
B.A., Harvard University; B.Arch., Columbia University; R.A.

David Turnbull
B.A. Hons, Dipl.Arch., University of Bath (England)

Guido Zuliani
Diploma (M.Arch.), Istituto Universitario d'Architettura di Venezia, Italy

Associate Professor

Tamar Zinguer
B.Arch., The Cooper Union; M.Sc., Technion-Israel Institute of Technology; M.A., Ph.D., Princeton University

Assistant Professor

Michael Young
B.Arch., California Polytechnic Institute; M.Arch., Princeton University; R.A.

Adjunct Faculty

Professors

Samuel M. Anderson
A.B., Harvard College; Sussex University, England; B.Arch., The Cooper Union; R.A.

William Clark
B.A., Pennsylvania State University; M.A., Ph.D., Columbia University

Ashok Rajji
B.Sc., University of Bombay, India; B.S., M.S., Texas A&M University; P.E.

Peter Schubert
B.S.Arch., Ohio State University; M.Arch., Columbia University; R.A., F.A.I.A.

Michael Webb
Diploma, Regent Street Polytechnic

Associate Professors

Steven Kreis
B.S., University of Missouri;
M.S., Hunter College CUNY

Pablo Lorenzo-Eiroa
Dipl. Arch., University of Buenos Aires
Escuela Superior de Bellas Artes
Ernesto de la Carcova Argentina;
M.Sc. University of Buenos Aires;
M.Arch., Princeton University

Markus Schulte
B.Sc., M.Sc., University of Hannover
(Germany);
P.E.

Georg Windeck
Dipl.Ing., Technical University of Berlin;
R.A.

Assistant Professors

David Allin
B.Arch., Cornell University;
M.Arch., Princeton University

Hayley Eber
B.A.S., The University of Cape Town;
B.Arch., The Cooper Union;
M.Arch., Princeton University

Lydia Kallipoliti
Diploma, Aristotle University of
Thessaloniki Greece;
SMArchS, Massachusetts Institute of
Technology;
M.A., Princeton University;
Ph.D., Princeton University

Louis Katsos
B.C.E., M.B.A., New York University

James Lowder
B.Arch., Southern California Institute of
Architecture;
M.Arch., Princeton University

Michael M. Samuelian
B.Arch., The Cooper Union;
M.Arch., Harvard University;
R.A., N.C.A.R.B.

Sheng Shi
B.S.C.E., M.S.S.E., Drexel University;
P.E.

Mersiha Veledar
B.Arch., The Cooper Union;
M.Arch., Princeton University

Gia Wolff
B.F.A., Parsons School of Design;
M.Arch., Harvard University

Instructors

Katerina Kourkoulou
B.Sc., Bartlett School of Architecture
(U.C.L.);
B.Arch., M.Arch., The Cooper Union

Daniel Meridor
Tel-Aviv University;
Venice International University;
B.Arch., M.Arch., The Cooper Union

Aida Miron
B.Arch., The Cooper Union;
Diploma, Bauhaus Stiftung Germany;
M.Arch., Escuela Tecnica Superior de
Barcelona, Spain

Lydia Xynogala
B.Sc., Bartlett School of Architecture
(U.C.L.);
B.Arch., The Cooper Union;
M.Arch., Princeton University

Previous Faculty Appointments

In order to indicate the distinction and level of professional accomplishment of these professors, we take pleasure in listing appointments of the past years: Anders Abraham, Wiel Arets, John Ashbery, Manuel Baéz, Norman Bryson, Eduardo Cadava, Susannah Drake, Sverre Fehn, Jay Fellows, Robert Freeman, Remo Guidieri, Janis Hall, Martin Harries, John Hawkes, Christopher Janney, Josef Paul Kleihues, Jana Leo de Blas, James Merrill, Don Metz, Francesco Pellizzi, Ahmad Rahimian, Gaetano Pesce, John Rajchman, George Ranalli, Aldo Rossi, Lindy Roy, Joseph Rykwert, Antonio Sanmartín, Jürgen Sawade, Massimo Scolari, Catherine Seavitt, Rafi Segal, D. Grahame Shane, David Shapiro, Daniel Sherer, Lee Skolnick, Richard Stapleford, Bernhard Strecker, Anthony Titus, Bernard Tschumi, Hans Tupker, Wim van den Bergh, Tod Williams, Lebbeus Woods and Bruce McM. Wright.

**The Cooper Union
Institute for Sustainable Design**

Kevin Bone
Director

Sunnie Joh
Program Director

Emeriti

Peter D. Eisenman
The Irwin S. Chanin Distinguished
Professor Emeritus of Architecture
B.Arch., Cornell University;
M.S.Arch., Columbia University;
M.A., Ph.D., University of Cambridge;
R.A., N.C.A.R.B., F.A.I.A.

Sue Ferguson Gussow
Professor Emerita of Architecture
Pratt Institute;
The Cooper Union;
The Brooklyn Museum;
B.S., Columbia University;
M.F.A., Tulane University

John Q. Hejduk*
Dean of the Irwin S. Chanin School
of Architecture
Professor Emeritus of Architecture
The Cooper Union;
B.S. in Arch., University of Cincinnati;
M.Arch., Harvard University;
Università degli Studi, Rome;
Hon. L.H.D., University of Illinois
at Chicago;
R.A., N.C.A.R.B., F.A.I.A.;
Fellow of the Royal Society

Richard Henderson*
Associate Dean of The Irwin S. Chanin
School of Architecture
Professor Emeritus of Architecture
B.Arch., Cornell University;
R.A.

Ricardo Scofidio
Professor Emeritus of Architecture
The Cooper Union
B.Arch., Columbia University;
R.A., N.C.A.R.B.

Ysrael A. Seinuk*
Degree in Civil Engineering,
University of Havana;
P.E., F.A.C.I., C.Eng., F.I.C.E.,
F. A. S. C. E.

Chester Wisniewski
Professor Emeritus of Architecture
B.Arch., Syracuse University;
Taliesin. R.A., N.C.A.R.B.