ARCHITECTURE (ARCH)

ARCH-601 Design 1: Media & Methods - (5 Credits)
This studio is an introduction to the fundamental concepts, processes and skills required for graduate architectural design. With a series of abstract yet non-reductive exercises, students will learn to create and discuss formal, spatial and material relations. Through design projects and discussions with the studio critic, students will develop an understanding of fundamental design principles, representational techniques, and analytical skills.

ARCH-602 Design 2: Interiorities & Contexts - (5 Credits)
This design studio addresses a specific site through its interior. It emphasizes the related conceptual and material impacts of this \"inside out\" approach. Circulation and its material and spatial qualities are explored through the design of a small building that responds to a detailed ensemble of architectural programs and the multiple contexts of a local institution. The studio has worked with a variety of community-based organizations for the purposes of knowledge exchange, allowing students to intimately understand the activities housed in their design proposals. Coordinated in parallel with Architectural Mediums II and Structures II, contemporary structural and representational techniques are explored within the studio introducing students to basic ideas of integration and comprehensive design.

ARCH-611 Mediums 1: Modeling & Drawing - (3 Credits)
This is the first of three courses that will introduce students to contemporary mediums, methods and theories of how digital tools impact basic concepts of architectural representation and experience. This course emphasizes the integrated use of drawing and modeling as a representational aspect of architectural communication. Topics include the introduction of basic drawing principles (lines versus NURBS versus curves) and basic modeling methods (additive, subtractive, derivative) among others. (A basic knowledge of computers is required.).

ARCH-612 Mediums 2: Advanced Modeling & Drawing - (3 Credits)
This is the second of three course that will introduce students to contemporary mediums, methods and theories of how digital tolls impact basic concepts of architectural representation and experience. This course introduces students to advanced methods of architectural modeling, drawing and visual communication. The focus of the course emphasizes multi-media methods of modeling and drawing. Topics include the introduction of composite modeling/fabrication/assembly, composite visualization, methods of developing Building Information Models (BIM) and methods for scripting within various modeling environment.

ARCH-631 Structures 1: Structure as Medium - (3 Credits)
This course introduces the fundamentals of structures including statics, strength, and stability of materials. Students are introduced to structural concepts, systems and the tracing of structural loads, using basic principles, physical modeling, theoretical and analytic methods. Topics include the interrelationship between strain, stress and stability, as well as the implications of tension, compression, shear, torsion and bending. (Pre-requisite is minimum three credits of college-level Physics or Calculus).

ARCH-632 Structures 2: Materialities and Qualitie Qualities - (3 Credits)
This course is an exploration of structural design in building using several material palettes including wood, steel, and concrete. This course introduces specific structural applications of materials commonly used in small-scale commercial and institutional buildings. Students are introduced to the design of columns, walls, joinery and connections appropriate to each material type. Theoretical, analytical, and computer simulation methods are employed.

ARCH-648 Directed Research - (1 Credit)
This course is intended for students who wish to do independent research at a graduate level in a subject of their choice and acceptable to the graduate faculty and the chairperson.

ARCH-648B International Studies - (3 Credits)
This course is intended for students who wish to do independent research at a graduate level in a subject of their choice and acceptable to the graduate faculty and the chairperson.

ARCH-648D Altered Estates: Speculations - (3 Credits)
This course focuses on the behavior and understanding of physical models and their capacity to generate theoretical ideas through their documentation and representation.

ARCH-649B International Studies - (3 Credits)
This course is intended for students who wish to do independent research at a graduate level in a subject of their choice and acceptable to the graduate faculty and the chairperson.

ARCH-651 H/T 1: Six Crises of Representation in Architecture - (3 Credits)
This is the first required course among a three course sequence that each introduce students to the basic methods and means of historicizing and theorizing architectural design, its texts, its buildings and its contexts. This course examines six pivotal periods in history, pertinent to the discipline and practice of architecture, when theories of representation change course and reconfigure historical arguments about the status of people, things and worlds into nee frameworks. It covers the following subjects: The Renaissance (perspective), Baroque (parametric), Eighteenth-century (nature, science), Modernism (autonomy), Digital (algorithm, forces), Media (visualization, uncanny valley).

ARCH-652 H/T 2: Design, Knowledge, and Context - (3 Credits)
This is the second required course among a three course sequence that each introduce students to the basic methods and means of historicizing and theorizing architectural design, its texts, its buildings and its contexts. This course approaches architectural context from the joint perspectives of environment and perception (ecology). It examines experience and knowledge as principle problems of architectural design through a global/historical survey of theories. The following subjects are covered: architectural theory, evolutionary theory, neurobiology, thermodynamics and the philosophy/practices of navigation and world-making.

ARCH-698 Independent Study - (1 Credit)
Students may conduct an independent study project on a problem of interest or as an extension of a regular course. The study may result in either a paper or a physical design project. The topic must be approved by the chair and may be supervised by any faculty member.

ARCH-703 Design 3: Urban Qualities & Materials Materialities - (5 Credits)
This design studio will focus on contemporary aspects of architectural urbanity. Specifically, the students will be introduced to the interrelationships between urban form and its material qualities. Designing from the outside in, issues such as mixed land use, composite building use, transportation, and environment will be coordinated through the specificities of a building enclosure and site. Coordinated with Technology I and Technology II, structural and material requirements will be considered in the design of the project enhancing students understanding of integration and comprehensive design.

ARCH-704 Design 4: Integrated Contexts & Mediums - (5 Credits)
This is the final studio in a series of four course design studios. This studio emphasizes the comprehensive nature of architectural design, the complexities of a design proposal's contexts and the required expertise of handing a variety of architectural mediums. One project, of moderate complexity, engages students in a design investigation for a site situated in a vivid ecological context (urban or rural). The development of the project (working in teams) includes all aspects of design development, including documentation of typical construction details. The schedule and deliverables for this course are coordinated with Technology III. Integrated Building Systems instructors advise the students on their projects alongside the studio. io.

ARCH-712A Digital Fabrication in Architecture Modeling - (3 Credits)
This course instructs students in the project conceptualization, preparation of drawings, and production involved in computer aided fabrication of architectural components.

ARCH-713A Mediums 3: Architectural Fabrication - (3 Credits)
Architectural Fabrication will focus on the computational processes, methods of making and production that informs an architectural project. Using an architectural precedent study based on an existing facade, interior or structural elements, students will seek to design and fabricate an architectural assembly detail that incorporates new relationships between computational methods, such as parametric modeling and scripting, and fabrication outputs, such as laser cutting, casting, vacuum forming, rapid prototyping. To propose a refabricated assembly that embeds and communicates new mediums. This final course will continue to introduce students to contemporary mediums, methods and theories of how digital tools impact basic concepts of architectural representation with an emphasis on experience.

ARCH-713B Mediums 3: Architectural Visualization Animation - (3 Credits)
Mediums III Visualization will engage with contemporary modes of digital and visual representation utilizing industry standard platforms for modeling, texturing, material authorship, rendering and compositing. Emphasis will be placed on clarity of a student written narrative and its associated visual execution. Students will learn about the mechanics of a visual image in regards to its construction but also its perception and impact on culture and today's image dominated society. This final course will continue to introduce students to contemporary mediums, methods and theories of how digital tools impact basic concepts of architectural representation with an emphasis on experience.

ARCH-713C Mediums 3: Architectural Communication - (3 Credits)
Architectural Communication will explore the means and methods of design, construction, and fabrication communication at the architectural scale. Architecture has consistently relied on the ability to translate complex ideas and design intent into a comprehensible and precise set of instructions. Students will explore ways that computation can be used to create, access, share, and manipulate information across various digital and industrial systems. This final course will continue to introduce students to contemporary mediums, methods and theories of how digital tools impact basic concepts of architectural representation with an emphasis on experience.

ARCH-753 H/T 3: Materiality and Cities - (3 Credits)
This is the third required course among a three course sequence that each introduce students to the basic methods and means of historicizing and theorizing architectural design, its texts, its buildings and its contexts. This course explores the material culture of cities in a deep historical context. The emphasis is on urban material culture in general and exposes students to related architectural and philosophical theories about cities. The following subjects are covered in relation to city building and design: the architecture of prisons, the architecture of hospitals, and the architecture of military fortifications. Additional related general subjects focus on the impact of quarantines, food supplies, transportation, war, and industrial production on city building and design.

ARCH-761 Technology 1: Environmental Controls - (3 Credits)
This course introduces concepts of energy and environment as an architectural mediums. It addresses the design of mechanical, electrical, plumbing and other systems for providing services in buildings. Heating, cooling, electrical service, lighting, plumbing, fire protection, vertical transportation, communication and security, acoustics, and energy conservation techniques are covered in parallel with Design Studio III and other case studies. Topics include practical applications, basic rules of thumb, building service for tall buildings, building services for various typologies such as institutional architecture, commercial architecture and/or mixed-use architecture.

ARCH-762 Technology 2: Materials & Assemblies - (3 Credits)
This course introduces students to advanced concepts of assembly through the design and development of mixed material assemblies and the management of their qualities. The building façade is the principle area of focus where design methods and case studies are examined as a means of cultivation an awareness of design sensibilities and detailed architectural techniques. Topics include assemblage of the structural types: wood, masonry, steel, tensile structures, and concrete; selection criteria for non-structural materials: glass, plastics, and non-ferrous materials; building components: stairs, windows, glass, and interior finishes, and criteria for fire, water movement, sound, and temperature control.

ARCH-763 Technology 3: Integrated Building System Systems - (3 Credits)
This is an applied science course in which advanced applications of scientific technology in structures, materials, and energy are developed through the context of architectural design. The course is taught in two formats: lectures and design-based critiques. A series of case studies and exercises are coordinated in parallel with group-based projects in Design Studio IV. Topics include energy modeling, construction communication, building component fabrication and designing advanced structural/material assemblies.

ARCH-770A Nanotectonica - (3 Credits)
This course examines the relationship between natural and architectural systems in the context of emerging technologies. It is a research and production seminar, which studies structures and organizations as they occur in nature at multiple scales, and it, utilizes generative design and fabrication techniques to arrive at intricate architectural assemblies. The exploration is bases on the study of recent architectural history and l lineage of naturalists, engineers and designers who pioneered ecological thinking and building.

ARCH-770B - The incredible weirdness of making: How Do We Do? - (3 Credits)
This course focuses on the complex relationships between culture and technology as two critical areas of influence on human \"making.\" Looking from present to past, students use the Industrial Revolutions and the institutionalization and dissemination of expertise as a framework to understand shifts in values intimately related to the emergence of new technologies that span the physical, biological and digital worlds. They combine and reinforce one another in ways driven by contemporary culture and, at the same time, affect how contemporary culture is formed. The course operates trans-historically and trans- geographically, ranging from how the Katana Samurai Sword is made to how the Kuka Robotic Arm makes. Moving between technologies, artifacts, materials, processes, and meanings, we will ask: How do we do? - with the \"we\" increasingly involving intricate human-non-human collaboration.

ARCH-770C Urban Context Laboratory - (3 Credits)
The Urban Context Laboratory is a directed research design/making seminar that investigates architectural and urban design methodologies through the lens of equity, sustainability, and justice. Advanced design research methodologies for site analysis, program development and conceptual design will be tested on an urban site that is subject to multiple pressures including densification, marginalization, or other structural inequities. New York City will be the laboratory in which ideas about equitable development, adaptive re-use, infill, and conservation will be explored, in dialogue with a set of community, institutional and private-sector stakeholders.

ARCH-770E Glass in Structures: Beyond Transparency - (3 Credits)
Glass is a singular term for a material that has an in-nitely divergent set of physical a.ributes, demanding new systems of construc,on detailing, and close collabora,on between architects and structural engineers. It is a bri.le material, and its structural behavior poses greater challenges when designing load-bearing glass structural members that are required in energy-e2cient building envelopes while considering the sustainable aspects of glass as a construc,on material, including methods of recycling and reuse and embodied carbon. In this course, students will explore the insights and experience gained from technologically advanced and sustainable learnings and develop their own concentra,on and research that makes the innova,ve use of material glass.

ARCH-770F The Challenge of Complexity - (3 Credits)
This class addresses the issue of technical drivers in the resolution of a formally and programmatically complex architectural project. It will focus on looking at the way these different drivers can influence and enrich these projects. The class will focus on advanced concepts and techniques of analysis and visualization in the development of responses to environmental, physical,materials science and fabrication inputs.

ARCH-770G Voracious Vernacular: Non -Urban Constructs - (3 Credits)
The vernacular project of this course is the research of non-urban global issues of social, political, cultural, and ecological import; the voracious component is to build visually provocative, multimodal representations of these issues. These representations will take the form of video installations and verbal narratives. This advanced seminar encourages graduate students to pursue individual research interests within the non-urban theme of the course. The socio-cultural and socio-political conditions students research form the context of the local and global critical practices of architects.

ARCH-770I Challenging the Boundaries of Innovation - (3 Credits)
Architects and structural engineers face significant challenges in the 21st century as architectural projects have grown larger and more complex, materials and technologies have become more specialized and advanced, and the world's cities have developed in size and density. This course is the exploration of the use of innovative engineering materials, technology and processes with a sustainable and holistic intention: it gives the student the ability to understand, contextualize, and analyze new materials, designs, and systems.

ARCH-770K MASHUP: Figuring out Configurable Cultures - (3 Credits)
The seminar will take this as an opportunity to a) discuss current discourses on configurable cultures and their implications, and b) study existing mashup work generated outside the discipline of architecture. The seminar will require students to create a mashup table-top objects as the main deliverable. Teamwork is encouraged.

ARCH-770R Reticulate Architectures - (3 Credits)
The' Reticulate Architectures' course is a research seminar that will explore '21st Century Contemporary Cities' in terms of their critical and topical visions, needs, and desires; their unique advanced operative urban and architectural conditions; environmental/resilient dependencies and challenges; cultural failures and celebrations; as well as, their consequent and progressive potential for 'new and ever evolving' urban and architectural successes.

ARCH-771A Automation for Architect. Manufacturing Manufacturing - (3 Credits)
This course will give students a basic introduction to the world of industrial robotic arms and automated manufacturing. Students will compare and contrast traditional design-for-manufacturing methods with a novel, design-driven manufacturing system. Special attention will be given to the immediacy of production that parametric design and computational approaches lend to contemporary design processes. An architectural assembly will be proposed, simulated, and prototyped using offline graphical robotic programming platforms (HAL for Grasshopper, RobotStudio), textual robotic programming languages (ABB RAPID), and the ABB industrial robotic arms available in the Pratt Architecture robotics shop.

ARCH-771B Scripting and Form Modeling - (3 Credits)
Students in this course investigate how computer programming techniques can be used in the generation of architectural form, particularly in the generation of drawings, both still and animated, and user-interactive systems.

ARCH-771E Computer Media: Automation for Architect Architectural Manufacturing - (3 Credits)
This course will give students a basic introduction to the world of industrial robotic arms and automated manufacturing. An architectural assembly will be proposed, simulated, and prototyped using graphical programming in RobotStudio, the ABB RAPID code language, and the ABB IRB 140 industrial robotic arm.

ARCH-772A Integrated Computer Modeling in Architecture - (3 Credits)
This course is an introduction to and advancement of computer-aided modeling and rendering of 3-D visuals in architecture. The emphasis of this course is on the integrated use of various software packages and the exploration of how the computer can be used for the effective generation and visualization of 3-D architectural design concepts.

ARCH-773A Animation in Architectural Design Animation - (3 Credits)
In this course students retool digital animation techniques into form generation devices for architectural design. In particular, students will focus on building interactive, performative models for the evaluation of architectural geometries..

ARCH-774A Architecture and Business Representation With Cinematic Techniques - (3 Credits)
This seminar is designed to build upon Pratt's international reputation of developing creative leaders by bridging the gap between the disciplines of architecture and business as well as emphasizing innovation and entrepreneurship. Students are provided with the tools to develop a business plan, to better understand financial concepts, to develop proposals and contracts, and engage in case studies to avoid common operating pitfalls. Students will be encouraged to develop strategic management skills in six study areas related to design management: operations management; financial management; marketing management; organization and human resource management; management of innovation and change; and management of local, regional, and global suppliers, distributors, and markets.

ARCH-776A Theory and Practice of Architectural Representation - (3 Credits)
This course gives students an overview of the practical and theoretical aspects of architectural representation from the 1960s to the present. Students examine how a variety of media is incorporated into representations of design, and in particular how computer media is used in contemporary architectural practice.

ARCH-777A Computer Media: Advanced Modeling - (3 Credits)
The basic premise underlying this seminar is that to better define what architecture can be and do in a hyper-mediated world, we must turn, not to computer paradigms, but to narrative film. To this end, this seminar examines films as if they were works of architecture and imagines architecture as film. Architecture is anything but certain, and the fiction of films, as opposed to the insistent actuality of buildings, frees us from the pretense of knowing with certainty. Also, in the tradition of architecture theory at its best, looking at films through architecture reveals them in ways not possible through literature or theater.

ARCH-779A Form Fitting - (3 Credits)
This course will investigate the digital craft of materializing a fitted structure through the use of additive and subtractive manufacturing processes. The work will focus on the technique of digital tailoring and the making of a material composite.

ARCH-781 Teaching Methodologies - (3 Credits)
This course is intended for students who wish to do independent research at a graduate level in a subject of their choice and acceptable to the graduate faculty and the chairperson.

ARCH-803 Summer Design Studio 6: Vertical Option - (5 Credits)
Coursework studies complex architecture and urban design problems related to various theoretical premises; cultural, historical and technical concepts are examined for application and contribution to developing appropriate architectural form and aesthetics.

ARCH-805 Design 5: Advanced Design Research 1 - (5 Credits)
This is an advance architectural design studio in which M ARCH students produce disciplinary work of high quality and sharpened resolution per studio section. A range of individual faculty-formulated studios are proposed as framework for advanced architectural design and research around mediums, contexts, topics, scenarios and other drivers of contemporary discourse and practice. Students are challenge to apply backgrounds accumulated throughout the core curriculum to new levels of intensified architectural production.

ARCH-806 Design 6: Advanced Design Research - (5 Credits)
This studio provides opportunities for advanced architectural design and research to upper-level M ARCH students in the final semester of the first-professional degree program. Faculty-formulated studios will ask students to engage contemporary and near-future discourses and practices in an effort to expose students to new constituencies and cutting-edge work in the discipline. Studios will also challenge students with new levels of independence and agility in order to model a life in the discipline after graduation.

ARCH-813 Multimedia and Computer Methods - (3 Credits)
The basic premise underlying this seminar is that to better define what architecture can be and do in a hyper-mediated world, we must turn, not to computer paradigms, but to narrative film. To this end, this seminar examines films as if they were works of architecture and imagines architecture as film. Architecture is anything but certain, and the fiction of films, as opposed to the insistent actuality of buildings, frees us from the pretense of knowing with certainty. Also, in the tradition of architecture theory at its best, looking at films through architecture reveals them in ways not possible through literature or theater.

ARCH-853A Composite Structures in Architecture - (3 Credits)
This course explores the possibilities and limitations of composite materials in the building industry. Students study how composite structures take advantage of the different properties of its constituent parts. Issues covered in this course range from initial analysis and design to implementation in architecture projects.

ARCH-857A Mass Customization in Architecture Customization - (3 Credits)
This course explores the use of mass customization in architecture, both through historical research and practical exploration. Students examine built and theoretical work and study how mass customization is integrated in the practice of architecture. Students also examine socio-political and socio-cultural aspects of mass customization in the discipline of architecture, particularly in relation to housing.

ARCH-861 Professional Practice - (3 Credits)
This course examines the profession of architecture. What is an architect? What is the process of licensing? What are the contractual responsibilities of an architect? What are the stages of an architectural project? These and other questions regarding the practice of architecture are raised and answered. The tools for starting, maintaining and evolving an architectural are presented.

ARCH-870A Design Intelligence - (3 Credits)
Design Intelligence deals with the particular moments where established techniques of architectural affect and production shift among design media, environments, and designed artifacts. The course traces links between drawing - shorthand for two-dimensional media - and building where specific confluence, crisis, and shift occurs in the conception and practice of each. This traffic back and forth between architecture's media is examined in archival research, theoretical discourse and actual production.

ARCH-870B Nature and Design Actualization - (3 Credits)
This seminar examines how nature and design have been considered intrinsically linked throughout history and considers how recent technological advancements can alter our understanding of how this relationship can be enacted in architectural design.

ARCH-870C Critical Geography and Techniques of Representation - (3 Credits)
This course investigates how spatial relationships affect a range of subject areas, from the way physical structures and natural conditions affect populations, to the way populations in turn shape physical spaces. Students will study the theoretical work of critical geography through texts by Denis Cosgrove and others, as well as the work of the Frankfurt School, which includes the work of Walter Benjamin. Students will develop a mapping project that researches contemporary relations between the social and spatial.

ARCH-870D Trans-Temporal Affinities in Architecture - (3 Credits)
The course will introduce students to network relational theory and comparative analyses of Architectural Production Across Time by using an emergent co-citative informational network method. This methodology will allow the students to research \"modern\" architectural production and derive new relational idea value structures and trace their developmental criterial in time. This research into network theory and its evolutionary and emergent representation will allow the students to derive their own research trajectories and theoretical positions which will include their projections of new directions in architecture. These new directions will be based on their interpretation of the research in the context of newly emergent cultural ecologies involving changes in design, science, politics, materials, and technology. Both historical research and future projections will be developed in online visual interactive co-citative network database mapping. Research content of the visual database will be accessible in the form of original films, television programs and interviews, websites, lectures, symposia, and museum exhibitions as well as, more traditional forms of representation such as, magazine articles, books photographs, plans, sections, perspectives, etc. It aims to produce greater knowledge of how past photographs, plans, sections, perspectives, etc. It aims to produce greater knowledge of how past architectural production pertain to present design discourse and debate.

ARCH-880A Material Articulation in Architecture - (3 Credits)
Students research historical and contemporary architecture precedents and identify sets of design criteria. Students then use these criteria to fabricate physical models. These models are prototypes for ways in which technology, technique, and material converge in architectural production.

ARCH-880C Let's Talk Beauty - (3 Credits)
This seminar will trace the long and often oblique relationship between ornament and architecture. We will explore the ways by which architecture has become implicated in the philosophical debate surrounding our ability to actualize a new world through design.

ARCH-880D Architecture in Film - (3 Credits)
This seminar introduces students to the scholarship in architecture and film as they examine the optical and analytical devices of narrative film within the context of architecture theory. Students study film as if it were architecture-making space with moving images-and architecture as if it were film-playing up the time and psyche of architecture.

ARCH-880E Architecture and Geometry - (3 Credits)
This course examines a number of problematics concerning the use of computation, as its use in design work has shifted the technological and aesthetic understanding of geometry and architecture. Students will look at specific historical and contemporary definitions of computation as well as its different uses in different fields related to the discipline of architecture.

ARCH-880F Plasticity in Architecture - (3 Credits)
This course is about rethinking questions of technology in architecture. The course addresses both historical and contemporary issues, including cybernetics, second-order systems theory, problems of agency and animations, theories of sustainability and computation, in an architectural context.

ARCH-880G History of Structural Design Structures - (3 Credits)
This seminar introduces students to the history of structural design and enables them to research theoretical and material topics regarding structural engineering. The seminar examines the relationship between architecture and engineering.

ARCH-880H Theoretical Principles of Materials And Structures - (3 Credits)
This course explores the theoretical principles behind structural engineering and building materials, and how new technology can alter methodologies in architectural design.

ARCH-880I Architecture and Culture - (3 Credits)
This course will allow for the specific examination of architecture with the respect to cultural systems, including ethical, political, legal, and property systems.

ARCH-880K Architecture and Urban Transformation - (3 Credits)
This seminar explores histories and theories of change in cities, focusing on the role that architectural design plays in producing, imagining, and justifying the redistribution of spatial, material and economic resources.

ARCH-880L Architecture and Society - (3 Credits)
This course investigates the relationship between space, social activism, and the environment in America from the 1960's to the present. It traced the evolution of environmental design by looking at the present. It traced the evolution of environmental design by looking at the complex relationships between the American civil rights and environmental movements. This seminar seeks to contextualize the history of advocacy and grassroots architecture and planning.

ARCH-880M A Science of the Environment - (3 Credits)
The science of ecology purports to study life as the sum of interactions between organisms and their natural environment. The term 'natural' has in recent decades undergone challenge and revision, in both biological and philosophical circles, increasingly to include many aspects of human cultural process and history. This course represents an approach toward the ideal of a \"total ecology\", at once an incorporation of \"deep ecology \", behavioral ecology and evolutionary theory as a discipline intended to transform and cultivate a new way of understanding the human physical and cultural relationship to the natural world.

ARCH-880N Security, Space, and Power - (3 Credits)
This course explores the relationship between power and space through readings in political philosophy and spatial practices in architecture and the arts. This year's seminar focuses on the work Michel Foucault and focuses on contemporary debates about economy, biology, race, and social justice. These include the spatial features that connect the pandemic to global economies and the criminalization of race to the technologies of policing and juridical procedure. Foucault addresses these subjects through historical research on systems of knowledge and how they emerge simultaneously as institutional forms of discourse that have social and spatial implications. The various contemporary power relations which we experience today, which link, for example, racism to biopolitics, or incarceration to the \"dangerous individual, \" are an effect of those power/knowledge relations. But regardless of where his analysis operates, whether it is discourse, institutions, or technologies of governmentality, one of the consistent features is how it underlines the spatial conditions of power-knowledge relations, how they sometimes isolate and partition, how at other times they pull together different disciplines and strategies and constitutes new knowledge-relations, forming new identities of subjectivity or new conditions of subjectivity vis-à-vis norms, or populations. In other words, power spatializes relationships in a manner that is at once constitutive, fragile, and asymmetrical. It is from that point of view, Foucault argues, that the power of protest and resistance, the power of revolution, or the power of counter-conduct can find their precise axes of operation and transformation. Thus, although Foucault's work on the interplay between knowledge, institutions, and governmentality and the spatial domains they constitute are in fact a way of getting at the problem of power, they are also about the problem of justice. Indeed, Foucault's ultimate interest isn't power, but rather the subject's relationship to it vis-à-vis biological, racial, juridical, economic, medical, penal, or political discourse, and because of this, his style of research has had one of the most significant impacts on scholars from various disciplines on a global level since the late 20th century from anthropology and sociology to legal studies and economics. Along with Foucault's texts we will examine a series of critical reflections that expand, shift, or contradict the subject-matter and style of research. These include theories of representation, sexuality, subaltern studies, and gender, race, economy and law, which are represented Judith Butler, Gayatri Spivak, Silvia Federici, Daniela Allen, and Bina Agarwal. Throughout the semester we will review the architectural writings and projects including work by the historians Robin Middleton and Mary Mcleod, contemporary theorists Paul Hirst and Keller Easterling, and projects by Bernard Tschumi, Laura Kurgan, and Eyal Weizman and identify further the role Foucault has played in architectural discourse since the late 20th century. Studies of art practices will include Vito Acconci and Sanja Ivekovic, Andrea Fraser and Hans Haacke, Maria Theresa Alves and Kara Walker, The Guerilla Girls and Act-Up.

ARCH-880O Wicked Urbanism - (3 Credits)
This course examines contemporary urban design practice through the macro-lens of the super wicked problem. The analysis focuses on the relationship between design and regulatory framework pertaining to emerging knowledge in resilience, and more broadly in ecology. Different projects of infrastructure serve as cases to be examined, including transportation, coastal, green and blue infrastructures. The course features site visits and involves conversations with regulators, designers, scientists and other pertinent parties. The final segment of the seminar will require students to generate alternative schematic design proposals based on what has been learned.

ARCH-901 Design 1: Introduction to Media & Methods - (5 Credits)
This is the first of three sequential studios. The course introduces incoming post-professional students to a selective yet vital range of digital, physical and graphic media through a series of architectural design exercises and speculations. A series of sequential, short projects allow students to become familiar with different media-driven design approaches ranging from a focus on architectural fabrication to architectural visualization. The course intends to expose students to the design methods and discourse surrounding architectural mediums as well as introduce them to the representational logics of innovation in contemporary architecture.

ARCH-902 Design 2: Testing Media & Methods - (5 Credits)
The second of three studios, this course allows students an opportunity to choose a series of methods and media articulating an area of focus and testing for their design research. The course focuses on advanced design methods of architectural visualization and architectural fabrication (or those in between) through a full semester, small scale project. The studio emphasizes the disciplinary aspects of architectural mediums, their design methods and output can range from prot0-architectures to project proposals depending on the instructor.

ARCH-903 Design 3: Speculating on Mediums - (5 Credits)
The final studio within the MS Arch sequence, this course allows students to develop a culminating project based upon the previous two semester's studio work (from Design Studio I and Design Studio II). The studio emphasizes contemporary and near future speculations into the design of project-based architectural visualization, architectural fabrication and/or those in between. Outputs will range from \"undersized architecture \" to \"oversized products\" and explore the disciplinary space between visualization and fabrication. Topics of focus may include (but are not limited to) live architectural rendering, animatronic architecture, pneumatic architecture, luminescent architecture, hydrological and/or horticultural architectures. Students will participate in a final exhibition-like review as well as be required to submit a written document analyzing their work. Projects form this course may be selected for long term installation with a variety of arts organizations and/or collaborative partners of the GAUD.

ARCH-960A Graduate Architecture 0-CREDIT Summer Internship - (0 Credits)
Master of Architecture and Master of Science in Architecture and Urban Design students may participate in a 90 hours a week, architectural-office summer internship in selected architectural firms after a formal selection process. An internship is intended to include all phases of office experience under the supervision of senior members of the firm. Internships may be applied to elective credits depending on the nature of each work assignment and the length of the internship period.

ARCH-960B Graduate Architecture Internship - (1 Credit)
Master of Architecture and Master of Science in Architecture and Urban Design students may participate in a 120 hours/15 weeks (8 hours/week or one day a week), architectural-office summer internship in selected architectural firms after a formal selection process. An internship is intended to include all phases of office experience under the supervision of senior members of the firm. Internships may be applied to elective credits depending on the nature of each work assignment and the length of the internship period.

ARCH-960C Graduate Architecture Internship - (2 Credits)
Master of Architecture and Master of Science in Architecture and Urban Design students may participate in a 180 hours/15 weeks (12 hours/week architectural-office summer internship in selected architectural firms after a formal selection process. An internship is intended to include all phases of office experience under the supervision of senior members of the firm. Internships may be applied to elective credits depending on the nature of each work assignment and the length of the internship period.

ARCH-960D Graduate Architecture Internship - (3 Credits)
Master of Architecture and Master of Science in Architecture and Urban Design students may participate in a 240 hours/15 weeks (16 hours/week architectural-office summer internship in selected architectural firms after a formal selection process. An internship is intended to include all phases of office experience under the supervision of senior members of the firm. Internships may be applied to elective credits depending on the nature of each work assignment and the length of the internship period.

ARCH-981 Pro Seminar: Theory and Analysis - (3 Credits)
This course introduces post-professional students that pertain to contemporary modes of fabrication, visualization and materialization, their theories and philosophies, with an emphasis on their impact in architecture discourse via other disciplines such as science, mathematics and philosophy. Students will read and discuss a variety case studies, texts and projects. Written or graphic based modes of theoretical speculation may be introduced in order to enable an understanding of how contemporary architecture can extrapolate new agendas from cutting edge modes of inquiry within architecture and across disciplines. Reading and writing methods will be introduced as a means of preparing students for the following semester.

ARCH-982 Pro Seminar: Theories of Architectural Mediums - (3 Credits)
This course introduces post-professional students to subjects that undertake the basics of theorizing, writing about and discussing their own projects with an emphasis on writing-as-thinking that produces potential realities as opposed to merely documenting existing ones. In addition, it further introduces post-professional students to contemporary theories and philosophies surrounding the use of various media, with an emphasis on their impact within architecture. Case studies, texts and projects will be read, discussions focused on the subject, an emphasis on writing methods and research methods anchor the course allowing students the opportunity develop the necessary skills to speculate on their own work in the following semester.

ARCH-988 Culminating Project Research - (3 Credits)
This course provides a framework for in-depth collective and individual research into contemporary and near-future scenarios surrounding architectural mediums in concert with faculty. Coursework consisting of documentation, analysis, graphics and texts culminates in a focused research approach and written proposal for the culminating design project in Design Studio III. This course is coordinated in parallel with the two Pro-Seminars (I and II) allowing students to theoretically underpin design work from the Summer semester as well as organize a speculative agenda for the Spring semester when a written/visual analysis of their final design will be required.