Undergraduate Electives

**In addition to the electives below, there are courses that are regularly offered under *AD, ARCH, DD, ID, and INT* course numbers which students may opt to take to fulfill design and/or arch elective requirements. The schedules for those courses can be found on the Registrar's Course Schedule website under the course prefixes noted above.

Course #	Section #	Title	Instructor
AD 490	001	UI-UX Design Tues 11:30 – 2:30	H. Kum-Biocca
AD 490	003	Art After the 80's Tues 2:30 – 5:30 HYBRID	E. Altin
AD 490	005	Ecology Drawing Wed 11:30 – 2:30	A. Penalba
AD 490	009	Designing for Augmented Reality Tues 6:00 -9:00 HYBRID COURSE	A. Zarzycki
Arch 408	001	Investigation in the Contemporary Landscape Wed 11:30 – 2:30 pm	T. Navin
Arch 541	001	Material Systems for Design Wed 11:30 – 2:30	T. Ogorzalek
Arch 583	001	tbd Wed 11:30 – 2:30 pm	S. Moore

Graduate Electives

Undergraduate students with cumulative g.p.a. of 2.8 or higher are encouraged to take 600-level graduate electives. For special permission to do so, print and fill out the form attached, obtain the approval of your undergraduate advisor and the graduate architecture advisor, and submit the completed form to the Office of the Registrar.

Masters students are also encouraged to take 700-level doctoral electives. For special permission to do so, contact the course instructor. Once this approval is conveyed to the graduate advisor, you will be given permission to enter the course.

Course #	Section	Title	Instructor
Arch 647	851	Grad BIM - ONLINE ONLINE COURSE	V. Benanti
Arch 662	001	Art in Public Space Tues 8:30 -11:30	K. Franck
Arch 662	003	The Rigor of Disorder Thurs 8:30 -11:30	M. Hurtado
Arch 686	001	Research Methods for Environmental Design Tues 11:30 – 2:30	K. Franck
MIP 631	001	History and Theory of Infrastructure Thurs 8:30 – 11:30	G. Theodore
MIP 652	001	Geographic Information Systems Wed 6:00 -9:00	tbd
USYS 702	101	Global Metropolis Tues 6:00 – 9:00 pm	G. Esperdy

Course Descriptions:

AD 490-001: UI-UX Design (Kum-Biocca) Application of theories, research methods, ethics, and design processes of User Interface/Users Experience (UI/UX) for designers. Students will research, develop, UI Design, and test UX designs. Design strategies will be discussed as they apply to physical, virtual, and hybrid solutions for desktop and mobile computer interfaces.

AD 4920-003: Art After the 80's (Altin) Today's art is rarely pretty. Much of art is difficult to look at and to understand; it is frequently confrontational. Contemporary art demands more than a simple visual communication or a passive affirmation/consumption. *Art After the 80s* aims to discuss how political agendas (especially after the Berlin Wall's collapse in 1989), a mono-polar economic world, deepening disparities, and increasing environmental problems changed the perception and production of art. Who consumes art today and how? More crucially, is art possible?

AD 490-005: Ecology Drawing (Penalba) This class is designed to explore new representational techniques to capture the environmental circumstances related to all forms of life that are impacted by the built environment. Students will be challenged to identify and illustrate the sensorial, ephemeral, and lasting phenomena of physical environments that are less visible in the design of our constructed spaces. We will experiment with a variety of techniques in analog and digital media (e.g., video, painting, graphics, etc.) to create novel and hybrid forms of representation. Drawing will be used as an expanded and assertive practice to address environmental, social, cultural and political issues to ensure that design and visual research remains a valued and vital contributor to the conversation about climate change and the environmental life of our cities.

AD 490-101: Designing for Augmented Reality (Zarzycki) In this course students will learn the conceptual framework behind Augmented Reality (AR) with its applications in art, design, and sciences.   The class topics will include commercial applications of AR, M-learning, public un-commissioned art (graffiti, hacking, and tagging) with electronic civil disobedience. The class discussion will place AR in the broader context of the mobility-on-demand culture, location-based and ubiquitous technologies, and the authoring of the public realm. Students will also explore how we can take advantage of the urban mobility for crowdsourcing, social networking, and multi-player gaming.

Arch 408: Investigation into the Contemporary Landscape (Navin) Introduces the design, construction and management of contemporary landscape projects through case studies, field trips, and personal contact with prominent practicing landscape architects. A historical perspective of landscape architecture is used as a context for discussion.

Arch 541: Material Systems in Design (Ogorzalek) Prerequisite: 4th year undergraduate standing or approval from instructor. This seminar will allow students to examine material systems that give design agency to matter as a creative and technical force in the making of architecture. In doing so, it will provide students an opportunity to understand and explore the role material matters play in contemporary architectural theory and praxis. Focused on the exploration and understanding of material systems, this course will provide students with the intellectual underpinnings for the re-conceptualization of matter within their own design processes.

Arch 583-001: tbd (Moore) tbd

Arch 647-851: Grad Building Information Modeling (Benanti) This ONLINE course will introduce students to the principles and practice of Building Information Modeling. Course exercises and projects are designed to enrich the students' understanding of the potential of this emerging technology on both a practical and theoretical level. The principal software that we will be using for this course is the latest version of Autodesk Revit Architecture.

Arch 662-001: Art in Public Space (Franck) Even just a glance at urban public spaces reveals a variety of short and long term installations, both authorized and unauthorized, that can be considered "art." Think of sculptures, both figurative and abstract (including memorials), as well as graffiti and other kinds of work made by members of the public such as

yarn bombing and chalk drawings and stencils on sidewalks.   In this elective, we will explore this variety, giving attention to what, when, where, why and by whom as well as to controversies that have occurred (think of Tilted Arc and Fearless Girl). Emphasis is on student presentations, information gathered by visiting actual sites and class discussions. Students will also conduct individual research projects on topics of their own choice.

Arch 662-003: The Rigor of Disorder (Hurtado) this seminar on architectural design involves three activities that correspond to the actions of reading, drawing and writing. the scope is to make students aware of the many different roles and understandings of order that architectural thinking can incorporate. from theory and the abstract thinking of science and mathematics at one end, to the built environment (buildings+) at the other, students will be asked to find their own position about a certain case study.

Arch 686-001: Research Methods for Environmental Design (Franck) Introduction to methods of inquiry useful to professionals planning and designing buildings, communities and cities. Skills developed in problem definition and phenomena: measurement, modeling, testing and evaluation. Open to undergraduates with permission of instructor.

MIP 631-001: History and Theory of Infrastructure (Theodore) The historical role of infrastructure in the formation of cities and the relation of planning theories to urban culture. Case studies are used to develop effective ways of learning urban design; method and substance are equally emphasized. Concentration on the social, economic, political, technological and topographic factors that affect urban form; analysis of urban design schemata and their relation to patterns of use; and the critical appraisal of planning ideologies and strategies.

MIP 652-101: Geographic Information Systems (Han) Prerequisite: course or working knowledge of CADD or permission of instructor. Geographical/Land Information System (GIS/LIS) is a computerized system capable of storing, manipulating and using spatial data describing location and significant properties of the earth's surface. GIS is an interdisciplinary technology used for studying and managing land uses, land resource assessment, environmental monitoring and hazard/toxic waste control, etc. Introduces this emerging technology and its applications. Same as CE 602 and TRAN 602.

USYS 702-101: The Global Metropolis (Esperdy) This course introduces the morphological and cultural evolution of the US metropolis, historical and economic, political, geographic, contemporary perspectives. The emphasis is on the intersection of social, and environmental conditions that gave rise to distinct urban areas and that have influenced urban populations for over three centuries. A chronological overview of the settlement, growth, decline and revitalization of American cities is combined with detailed case studies.