

**Spring 2019
College of Architecture & Design
Electives List
11/13/2018**

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.

<u>Course #</u>	<u>Section #</u>	<u>Title</u>	<u>Instructor</u>	<u>Enrollment</u>
AD 325	002	Entrepreneurship for Designers Fri 1:00 – 4:00	K. Mead	0
AD 490	002	Art After the 80's Tues 1:00 – 4:00pm	E. Altin	14
AD 490	004	Storyboarding Wed 11:30 -2:30 pm	J. Ross	15
AD 490	102	Ethnographic Methods/Spatial Design Tues 6:00 -9:00	G Von Koenig	15
AD 490	452	The Digital Asset, Modeling, Texturing and Managing Online Course	A. Wendell	15
INT 351	002	Furniture Design Wed 11:30 – 2:30	D. Brothers	9
Arch 312	002	Environmental Education Wed 11:30 – 2:30pm	S. Moore	15
Arch 337	002	Building Information Modeling Tues 8:30 – 11:30am	V. Benanti	14
Arch 531H	002	Aspects of Urban Form Tues 1:00 – 4:00	Z. Celik	15
Arch 537	002	Building Design for Hazards and Resilience Fri 1:00 -4:00	R. Taher	0
Arch 583	002	Ordering Systems Thurs 8:30 -11:30	M. Hurtado de Mendoza	13
Arch 583	004	Urban Morphology: Cities by Design Wed 11:30 – 2:30	C. Harp	15
Arch 583	006	Design Strategies for Zero - Energy Thurs 8:30 – 11:30 *** This course qualifies for the Sustainability Minor**	A. Zarzycki	2

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.

<u>Course #</u>	<u>Section #</u>	<u>Course Title</u>	<u>Instructor</u>	
Arch 619	002	Architectural Photography Thursday 8:30 – 11:30	N. Prantis	5
Arch 647	002	Building Information Modeling Tues 1:00 – 4:00pm	V. Benanti	10
Arch 662	102	Urban Theory and Contemporary City Wed 6:00 – 9:00pm	G. Esperdy	10
MIP 655	002	Land Use Planning Wed 11:30am – 2:30	T. Navin	14
USYS 711	002	The Good City Tuesday 5:30 – 8:30pm	K. Franck	3

Course Descriptions:

AD 325-002. Entrepreneurship for Designers (Mead) With an orientation towards the marketing of original products and/or the establishment of a business, the course provides an introduction to relevant economic concepts and moves through the process of idea creation to business formation and funding. Entrepreneurship in a digital and social era with alternative financing methods such as crowdfunding is examined. Students are required to develop a plan/pitch for a potential business idea or product aimed at potential investors. The course is intended for students who are interested in pursuing a creative career as a self-employed or freelance designer and who have or intend to have new products to manufacture and market. Students who are interested in learning about business and financial concepts, especially as they pertain to those working in creative fields, may also be interested. Individuals planning to work in the service sector of law, advertising, marketing, web design, or management who are interested in working with businesses or individuals who specialize in design endeavors and products are also likely to find the course useful.

AD 490-002. 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? *Art After the 80s* will introduce new ways to communicate "meaning" and will make art look prettier to you.

AD 490-004. Storyboarding (Ross) This course would cover the three major areas of storyboard, concept and sequential artwork that coincide with the expanding new age of visual narratives such as video games, film, animation, comics and graphic novels. Different uses and styles of storyboards will be explored such as storyboards for film, games, or music videos as well as common forms of sequential art such as graphic novels and comic strips. Storyboard artists tell stories with drawn pictures, movement, and sound. This course will delve into the skills of a professional storyboard artist such as sophisticated illustration and observational skills and a solid understanding of the dynamics of form, gesture, and movement.

AD 490-102. Ethnographic Methods & Spatial Design: Fieldwork in Practice (Von Koenig) Ethnography, the study and systematic recording of human cultures, can be a valuable tool to understand for any designer. The focus of this course is to explore how various qualitative and quantitative methods can reveal insights that can be used to inform architectural or interior design practice & programming. It provides an overview of ethnographic and interviewing research methodologies that can be applied to design research. We will begin by developing a general understanding of Ethnography as a field and a science in its own right, then transition into how designers can do/use ethnographic research in the design process. Over the course of the semester, various methodologies will be explored and conducted as a means to lend an objective understanding of user needs, goals, motivations and frustrations. This will occur through deep observation, interviews and video projects. Various documentation deliverables will be required as well.

AD 490-851. The Digital Asset, Modelling, Texturing and Managing (Wendell) Visual effects, 3D Animation, Game design/development and VR/AR all make use of digital assets. These assets often revolve around 3D models that are UVW unwrapped and textured. In the past the level of detail for these assets varied depending on the final media. The current and near future pipelines create a single level of detail for all digital assets. This course teaches a modern pipeline for high detail modeling, unwrapping and texturing (digital painted textures) for DD, IT, and COM students. As an online course we can provide the offering across the university and bring our expertise into a number of departments. As a single 3 credit course our students interested in learning more specific techniques in these areas (often asked for by our students) can spend a semester developing a reliable and robust pipeline for sophisticated asset development. The specific tools for this class will be industry standard - Maya, 3DS Max, Photoshop, MARI and Substance Painter.

Arch 312-002. Environmental Education (Moore) Prerequisite: [ARCH 264](#). Involves architecture students in working with grade school or high school students in the solution of a joint environmental design project. Participants first work toward developing their own understanding and sensitivity of the manmade environment. Emphasis on learner-directed and discovery-guided inquiry, and educational methods to increase awareness of the physical settings created for human activities. Projects developed in nearby schools which focus on the interaction of individuals and small groups with the environment.

ARCH 531H – 002. Aspects of Urban Form (Celik) Prerequisites: [ARCH 382](#). An examination of the major forms and patterns of urban development from classical antiquity to the 20th century, considered in relation to the changing conceptions of the city as well as cultural, socio-economic, and political development.

Arch 537-002. Advanced Structures: Building Design for Hazards and Resilience (Taher) This course discusses the topic of building design for various hazards which are mainly earthquakes, high winds/hurricanes and floods. Each type of hazard is discussed separately. First, the nature of the hazard, expected damages and the corresponding response of a structure are explained. Then the structural building design process is covered based on the requirements of the latest codes and standards. Design examples are used to illustrate the various design methods. Eligible for Sustainability minor.

Arch 583-002. Ordering Systems: The relationship between order and disorder in contemporary architecture (Hurtado de Mendoza) The seminar is intended to confront the role of "order" in architecture as a basic tool for the conception of space. This confrontation will include both the actions of thinking and doing. The course will explore different systems of order, from the more ideal and conceptual to the more complex ones. The exploration of complexity will go through the different possibilities that the sciences of complexity are opening up and applying them to architecture. Numbers, proportion and diagrams will be part of our interest, but also patterns, tessellation, and topology; chaos, fractals and

attractors; fuzziness and emergency. In the vast domain of the relationship between order and disorder, we will try to find out the hidden rules behind certain solutions, specially built precedents, and the architectonic meaning behind certain concepts. We will look at nature, art, science and mathematics to extract ideas (not solutions) and interpret them within the architecture culture. As a roof of the seminar expectations, let's introduce *Informal*, Cecil Balmond's case studies on collaborations with Koolhaas, Libeskind and many other architects (Prestel 2002).

Arch 583-004. Urban Morphology: Cities by Design (Harp) What constitutes the urban? How are urban constructs begun, developed, and given their characteristic forms? What conditions and values conspire to influence the making of memorable and lasting towns, cities, and urban places? Against a contemporary backdrop of rapid urbanization, densification, branded images of urban living, and struggles between globalization and localization, a focused look at patterns, processes, and examples of the distant and more recent past can serve as guides toward building a more enlightened and sustainable future for both man-made and natural environments

Arch 583-006. Design Strategies for Zero-Energy (Zarzycki) This course discusses recent precedents for zero-energy and zero-carbon buildings. It surveys state-of-the-art practices and technologies with in-depth analyses of high-performance designs, smart systems, and low-carbon solutions. Students will research various aspects and scales of resilient and sustainable designs starting with passive house (Passivhaus/MINERGIE-P standards) to active and smart building/city strategies. They will benchmark developed case studies against AIA's 2030 carbon-neutral commitment and its 2030 Design Data Exchange (DDx) database to understanding matrices involved in tracking of buildings' impact on the environment. As part of the course, students will develop a research paper and conduct a case study that investigates zero-energy and zero-carbon, and/or smart buildings. This course is intended for the research-minded students, particularly for those who are looking to develop sustainable/resilient design research agenda.

Arch 619-002. Architectural Photography (Prantis) Prerequisites: [ARCH 501G](#), [ARCH 502G](#), [ARCH 503G](#). Photography for architectural presentations and portfolios. Lectures include orientation on light and space, slide presentations, and the use of text to reinforce experimentation in photography.

Arch 647-002. Grad Building Information Modeling (Benanti) This 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 662-102. Urban Theory and Contemporary City (Esperdy) This course surveys the work of major thinkers who have shaped modern and contemporary urbanism, including critics, planners, architects, sociologists, and geographers. Emphasis is on theoretical texts from the late 19th century to the early 21st century that have had a significant influence on urban evolution in both social and spatial dimensions, in the central city and in/beyond the periphery, wherever urban people dwell. These texts are also examined within the context of key socio-economic and cultural developments, including industrialization, post-industrialization, capitalism, marxism, post-colonialism, segregation, immigration/migration, neoliberalism, gentrification, globalization and information technologies. Throughout the course, theory is understood as something that can shape urban form, urban policies, and urban attitudes, and as something that can guide urban analysis. To this end, theoretical texts and other readings and will be paired with case studies that offer students the opportunity to explore the relationship between urban thought and urban action, using diverse and global examples from the mid-20th century to the present.

MIP 655. Land Use Planning (Navin) Spatial relations of human behavior patterns to land use: methods of employment and population studies are evaluated; location and spatial requirements are related to land use plans; and concepts of urban renewal and recreational planning are investigated by case studies. Same as [TRAN 655](#) and CE 655.

USYS 711. The Good City: Environmental Design and the Quality of Metropolitan Life (Franck) Prerequisites: Enrolment in Urban Systems Program or by permission of instructor. This course introduces urban systems doctoral students to the various ways in which architects, urban designers, and planners have sought and continue to seek to improve the quality of everyday life in urban and suburban environments through the design of the built environment, both at the scale of neighborhoods and communities and at the scale of buildings. The emphasis is on manipulation of built form, transportation, and public space as responses to perceived problems.