



College of Architecture, Planning  
& Landscape Architecture



# ELECTIVES

## Fall 2021



[capla.arizona.edu/courses](https://capla.arizona.edu/courses)

## ARCHITECTURE ELECTIVES – FALL 2021

Please contact [Sasha Wilson at s1wilson@email.arizona.edu](mailto:s1wilson@email.arizona.edu) & [Tayler Jondall at Tayjondall@email.arizona.edu](mailto:Tayjondall@email.arizona.edu) (undergrad) or [Emilio Romero at eromero@email.arizona.edu](mailto:eromero@email.arizona.edu) (grad) if you have difficulty enrolling in any of the architecture courses below.

**THIS ELECTIVE LIST IS SUBJECT TO CHANGE: UPDATED 3/29/21**

- ARC 160c1**  
(Gen Ed)
- Architecture and Society (3cu) fully online Simone**  
The purpose of this course is to lay the foundation for architectural literacy and develop an understanding of architecture's role in society through ancient times to present day. This is accomplished through studying the major components that affect architecture: region, culture, and technology. The basis of this knowledge is found in understanding the relationship between a society and the forms it creates, as the built environment has, a permanent and profound impact on personal health, productivity and happiness, and on community life. The course follows these factors chronologically through the history of world civilizations, from ancient civilizations to contemporary society in the east and west.
- ARC 160d1**  
(Gen Ed)
- Sonora (3cu) fully online Lotze**  
A multidisciplinary introduction to the Sonoran Region of Southern Arizona and Northwest Mexico. Providing the context for settlement long before our current political boundaries were shaped, the Sonora is a culture that spans time, human institutions, and political ideology. The course's topics range from earth and natural sciences, social sciences, humanities, architecture, and landscape architecture. Self-guided self-selected field trips form the basis for written investigations; online discussions of texts and current topics broaden understanding of the region and the various ways it is experienced.
- ARC 220**  
(ARCE/GenEdT2)
- History of Applied Building Technology (3cu) live online Thursday 2-3:15pm - Schrenk**  
This course will provide an overview of global architectural history from the Industrial Revolution to today with an emphasis on how architects apply historical knowledge in contemporary practice. Note: B.Arch. students may not utilize this for Tier 2 HUM - it may be taken by B.Arch. students for lower division elective credit.
- ARC 303**  
(Gen Ed)
- Investigating the Exhibition (3cu) fully online Simone**  
This course will examine contemporary exhibitions in the Americas and Europe with the intention of sensitizing the student to the connections between art, design and architecture.
- 461A/561A**  
*(Switching from Spring to Fall not yet approved for Catalog)*
- Water Efficiency in Buildings (3cu) Live Online Thursdays 12:30-3:00pm - Crosson**  
The course focuses on the effective use of water and its impact on energy consumption and building performance. It emphasizes the issue of water/energy nexus through a proposed four-faceted body of knowledge addressing 1) Water Conservation, 2) Water Harvesting, 3) Water Reuse, and 4) Water Energy Generation Technologies. Although water reduction and water harvesting have recently become more common in green buildings, water reuse and water energy generation are relatively newer technologies that demonstrate greater promise to contribute to the affordability of water and its use as alternative energy sources. The course also emphasizes the environmental benefits from integrating water saving strategies to modify thermal conditions --that would otherwise use energy to achieve-- while the saved water will facilitate exterior landscape development. Course delivery will include calculative and empirical methods, use of computer simulation, design nomographs, and hands on inquiry based learning through selected laboratory sessions.
- ARC 461i/561i**  
(MS.Arch)
- Critical Material Practices (3cu) Friday 8:30am - 11:00am - Ida**  
Three modules: (1) materials: classifications, physical properties, phenomenal (aesthetic) properties, and fabrication processes; (2) laboratory tests (probes) for empirical verification; and (3) selection of appropriate materials in the design and production of architectonic functional components (details)-preferably at full size.

**ARC 461k**  
(SBE)

**Energy and the Environment (3cu) fully online Youssef**

"Energy and the Environment" is a course that fosters awareness and thorough understanding of the qualitative and quantifiable environmental forces that contribute to energy use in buildings. The course introduces basics for understanding solar energy and light, climate and microclimate, and human thermal comfort as related to the built environment.

**ARC 461L**  
(SBE)

**Energy Use in Buildings (3cu) fully online Youssef**

"Energy Use in Buildings" is a course that introduces the quantitative and qualitative factors that contribute to energy flows and consumption in buildings. The basis of understanding energy flow and use by buildings depends on the thermodynamic and heat transfer processes and exploration of major external and internal forces acting on buildings.

**ARC 461p/561p**  
(MS.Arch)

**Environmental Science Technologies (3cu) Tuesday 12:30pm - 3:15pm - Youssef**

This comprehensive laboratory-based course focuses on understanding sustainable design through investigation of a selection of the most important environmental design principles including: Human Thermal Comfort, Architecture Daylight, Window and Building Shading, Natural Ventilation, and more. These modules focus on laboratory testing and field investigation of students' scaled models to verify thermal and visual performance of their current proposed designs. Sustainability will be achieved through empirical iterative investigation of a series of design improvements using advanced equipment and instruments in the House Energy Doctor laboratory. Final presentations and documentation of improved designs will provide scientific materials suitable for publications and funded grants.

**ARC 471A/571A**  
(Not approved for  
Catalog)

**Light in Modern & Contemporary Art & Architecture (3CU) Flex In Person Thursdays 1-3:30pm - Hollengreen**

Provides coverage of the handling of light in selected paintings, sculptures, photographs, films, and works of installation art as well as works of architecture from the late nineteenth century to the present. Light will be analyzed in its technical, spatial, social, and symbolic dimensions as seen in the context of larger cultural trends.

**ARC 471C**  
(Not approved for  
Catalog)

**P3 Colloquium: Urban Agency (1CU) Flex In Person Friday 11:00am - 11:50am - Robinson/Guerrero**

What critical questions regarding urban conditions must we ask at this moment in time? Who and what are the entangled constituencies and how can design methods be leveraged to investigate or propose more just, equitable and resilient futures? This colloquium is structured as a curated conversation about public space and design agency. Students and faculty take turns leading conversations on urban themes and issues that will prompt iterative and aggregating visual and textual responses. The themes range from public space, suburban, ex-urban, gender, race and class, regulations and codes, alternative urbanisms and informal urbanisms as well as sustainable urbanisms. Visual and textual responses culminate in an Urban Agency Dictionary.

**ARC 481A/581A**  
(Not approved for  
Catalog)

**Techne IV (3CU) Flex In Person Mon 9:30-12pm & Fri 10-10:50am - Wachter**

This course will develop knowledge through investigations of material processes of renewable, waste to resources, high performance, or emerging materials. The course will employ advanced techniques in digital modeling, simulation, and analysis, to further understand a material and its potential architectural use and performance. This course will explore digital fabrication techniques as a design tool.

**ARC 481B/581B**  
(Not approved for  
Catalog)

**Textile Fabrications (3CU) Flex In Person Meeting Pattern TBD - Hazelbaker**

This course will investigate the material applications and assembly potentials of textiles in Architecture. Textile operations utilize flat patterns and surfaces to generate form — and the translation from 2d to 3d occurs with little intervention. When coupled with fabric construction, and in particular stitching and seaming techniques, two-dimensional templates have the capacity to both express and organize space.

Workshops in this course are organized as a series of explorations in material and fabrication processes, which will incorporate various techniques, patternmaking, and materials. Criteria is specific and unique to each object — focusing on structural, programmatic, environmental and representational conditions.

**ARC 491P/591P**  
(Not approved for  
Catalog)

**Architecture and Performance (3CU) Flex in Person Meeting Pattern TBD - Weinstein**

This course investigates the nexus of architecture and performance, and particularly the eventfulness of space through architectural, performance and performance studies methods. As a student in this course, you will be introduced to architectural, performance and related social, cultural and critical theories. You will engage in case-study research of built and speculative spaces. Depending on the semester's focus, these may include purpose-built event spaces and/or public structures and institutions, urban spaces and landscapes that are re-imagined through daily rituals, durational occupations, or other unique events. You will work with and through performative concepts and practices in several ways: through writing and discussion; through case study research and analysis; and through critical and creative methods that may include drawing, modelling, and other visual media as well as documented situated and embodied practices. Performances both re-inscribe and challenge norms; we will interrogate space through performance as a means to explore how space performs, who and what does (not) appear and perform, and how ephemeral spatial events can give space and place to the previously invisible, to the contested nature of space.

**ARC 493/593**

**Internship (1-3cu) TBA - Hardin**

Specialized work on an individual basis, consisting of training and practice in an architecture firm or allied field. Repeatable for a maximum of 3 units. Permission of instructor required. P. 3rd year and above.

**ARC 496d/596d**

**Daylighting, Health, & Behavior (3cu) live online Tuesday 2:00pm - 4:30pm - Engineer**

This course focuses on the critical analyses and design of daylighting systems for human comfort, physical and psychological well being. Students will investigate the phenomenon of natural light in built environments from the perspective of human behavioral and social factors and how daylighting strategies may be implemented to achieve multiple goals of sensory design, comfort, wellbeing, and productivity. Students will test various daylighting design strategies discussed in class via group and individual projects which will include daylighting measurements, observations, photography, and computer simulations.

**ARC 497k/597k**

**The Portfolio: Advanced Graphics, Presentation, Layout, and Design (3cu) Monday/Friday 11:15am - 12:30pm - Maher**

Provides students with an opportunity to revisit past projects - deconstruct them, and develop them to new levels both intellectually and graphically. Works will be coalesced, along with emerging design work, into cohesive graphic and digital portfolios. When possible, this course will integrate with current thesis and capstone projects as well as studio assignments. P. 302 for undergrads, 510d for arch grads, 610 for LAR grads. Contact department to register.

**ARC 499/599**

**Freedom By Design (FBD) Trumble, C**  
Description TBD

# WATER EFFICIENCY in BUILDINGS

Learn to audit **REAL BUILDINGS** in collaboration with a  
community partner

**Make a REAL IMPACT on building water use!**

## COURSE DESCRIPTION / FALL 2021 / ARCH 461a/561a

The course focuses on the effective use of water and its impact on energy consumption and building performance. It emphasizes the issue of water/energy nexus through a proposed four-faceted body of knowledge addressing 1) Water Conservation, 2) Water Harvesting, 3) Water Reuse, and 4) Water Energy Generation Technologies. Although water reduction and water harvesting have recently become more common in green buildings, water reuse and water energy generation are relatively newer technologies that demonstrates greater promise to contribute to the affordability of water and its use as alternative energy sources. The course also emphasizes the environmental benefits from integrating water saving strategies to modify thermal conditions --that would otherwise use energy to achieve-- while the saved water will facilitate exterior landscape development. Course delivery will include calculative and empirical methods, use of computer simulation, design nomographs, and hands on inquiry based learning through selected laboratory sessions.

FIELD TRIPS

RAINWATER HARVESTING

CONSERVATION

REUSE / RECYCLE

NEW TECHNOLOGIES

ENERGY WATER FOOD NEXUS

NET ZERO WATER

SITE ASSESSMENT

SYSTEM DESIGN

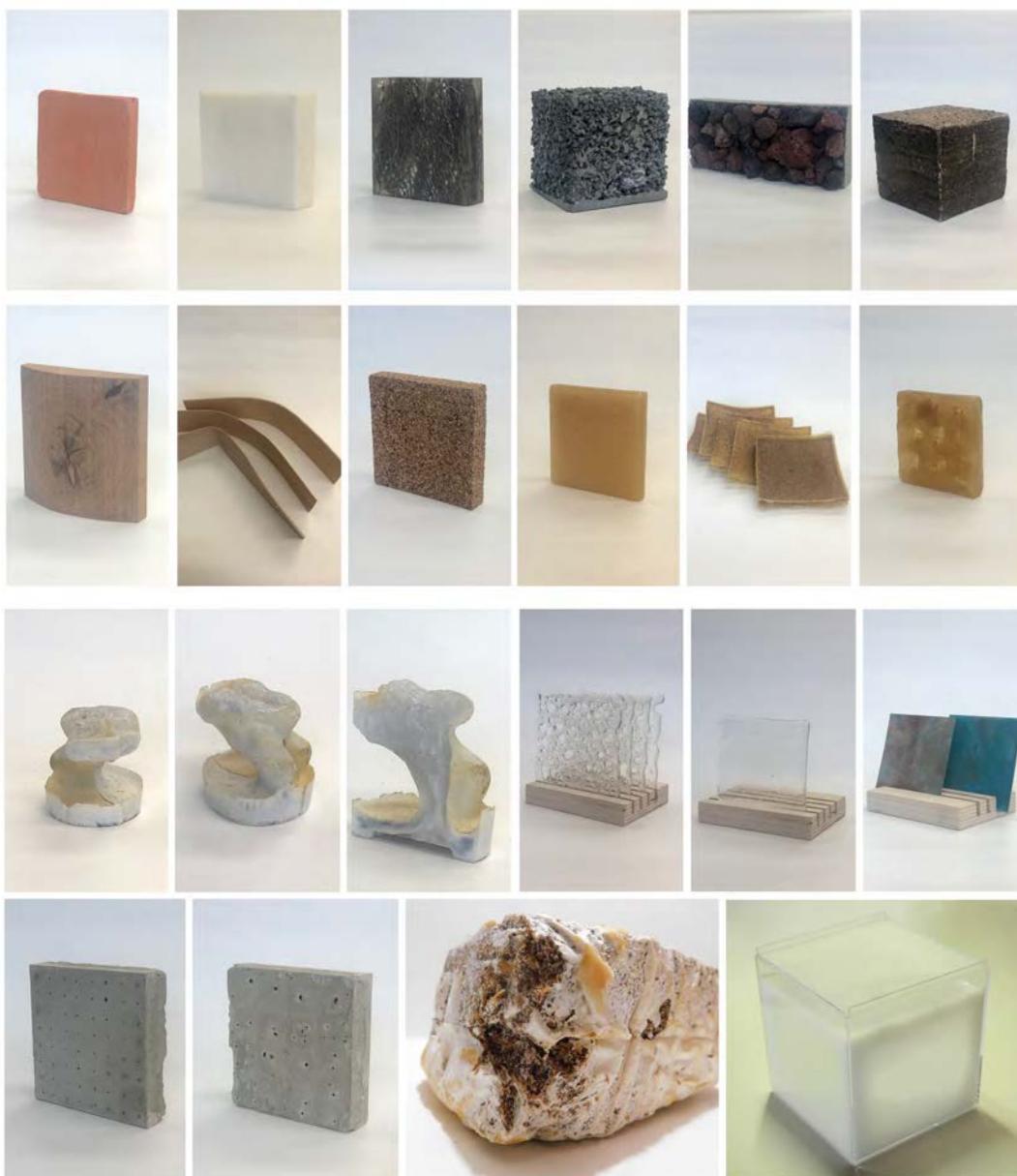
BIOLOGICAL TREATMENT

“...matter is slow space and space is fast matter...matter and spirit are the same, they follow the same direction...Could spirit be such infinitely fast matter that to our eyes it disappears as matter?”  
Eduardo Chillida

”No - no glue. Only logic.”  
Gregory Bateson

### Course Overview:

The course will engage with a deep scientific and artistic study of materials that are regionally sourced, whether from soils, plants, or byproducts of alternate material streams. Explorations will investigate material properties that metabolize energy in new ways through climate resource harness, transformation, storage, and distribution in buildings. Physical (mechanical, optical, acoustical, thermal, etc.) and sensorial-perceptive (kinesthetic, visual, auditory, haptic, etc.) properties will be the criteria for experiments that elucidate theoretical and practical applications of materials aimed at developing an inventive model of design practice with the capacity for new aesthetic and performative qualities responsive to emergent human needs and environmental ethics.



## material futures

earthen . agro-byproduct . biogenic  
environmental remediation . transformative

ARC 461i | 561i Materials: Properties + Tests

Fall 2021: fridays 8:30am - 11:00am, Arch Rm.204c + Material Labs

Associate Professor Aletheia Ida, Ph.D.

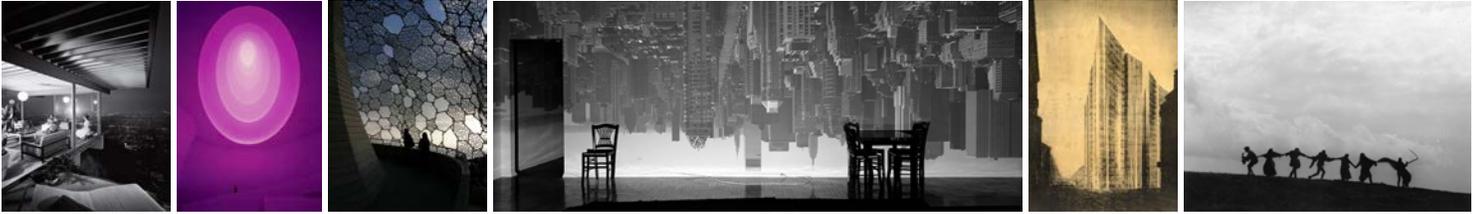
IMAGES: Material studies from ARC 461i+561i Students

# DAYLIGHTING, HEALTH & BEHAVIOR



THIS COURSE INVESTIGATES THE PHENOMENON OF NATURAL LIGHT IN BUILT ENVIRONMENTS. IT ADDRESSES HOW DAYLIGHTING MAY INFLUENCE THE SOCIAL, CULTURAL, AND BEHAVIORAL ASPECTS OF SPACES. AT THE SAME TIME, IT FOCUSES ON THE CRITICAL ANALYSIS AND DESIGN OF DAYLIGHTING SYSTEMS FOR HUMAN COMFORT, SENSORY ACUITY, AND PHYSICAL AND PSYCHOLOGICAL WELLBEING. STUDENTS FORMULATE THEIR OWN DEFINITIONS OF WHAT CONSTITUTES GOOD DAYLIGHTING VIA QUANTITATIVE AND QUALITATIVE RESEARCH METHODS.

THEY LEARN HOW TO DEVELOP A COMPREHENSIVE LIGHTING STRATEGY FOR A DESIGN PROJECT, AND TEST IT VIA MEASUREMENTS, OBSERVATIONS, PHOTOGRAPHY, AND COMPUTER SIMULATIONS.



## **ARC 471a/571a Light in Modern and Contemporary Art and Architecture**

Hollengreen  
Fall 2021

Course schedule: Thursdays, 1:00-3:30 pm

Course type: History/Theory elective satisfying part of the requirements for the (Meta)Physics of Light P3 cluster and open to other interested undergraduate students who have completed ARC 333/435 as well as graduate students who have completed their required History/Theory courses.

We spend most of our time now in spaces that are inside, artificially lit, with computer and device screens as our major interface with the larger world (what one author recently called our “screen bunker” and another “The Future: Down and Out [but Dark and Sexy]”). What has been the role of architecture, for better or worse, in facilitating our current lifestyles? How can we re-center our conception of architecture on light, a fundamental condition for architectural experience, health and wellbeing, productivity, visual and tactile pleasure? And how can explorations of light in works of art, released from some of the functions that buildings must perform, provide inspiration and strategies for the innovative design and interpretation of light?

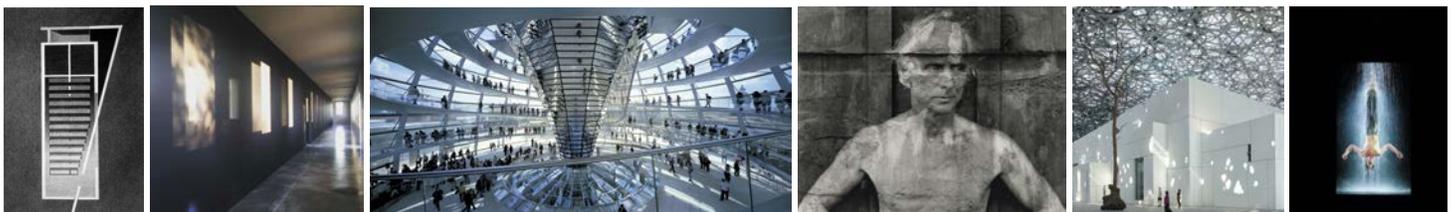
This course will address the handling of light in selected paintings, sculptures, photographs, films, installation, and digital art as well as works of architecture from the late nineteenth century to the present. Light will be analyzed in its technical, spatial, social, and symbolic dimensions as seen in the context of larger cultural trends.

A thematically organized seminar, the course will begin with a brief setting-of-the-stage in the late nineteenth and early twentieth centuries: we will consider phenomena like the development of large factories and other workspaces with special lighting needs, light in medical settings of health and madness, electrification, early cinematic light, and light in commercial settings. The bulk of the semester will be spent on art and architecture of the later twentieth century and the present, from minimalist abstraction to the environmental choices of today, and the enhancement of perception of light. Students will finish the course with a case study research project on the handling of light in the work of one artist or architect.

This course should be an excellent complement to the technical, research-, and practice-oriented other electives in the (Meta)Physics of Light P3 cluster, endowing students with the cultural literacy and discursive terms of light in contemporary art and architecture, a critical contributor to their presence and power. As such, it will support students enrolled simultaneously in the Light cluster Options studio and/or Project Inquiry.

The course is also open to advanced undergraduates *not* in the Light P3 cluster and to graduate students. Come develop your rhetorical skills, in speaking, writing, and drawing, in order to capture strategies and effects of light.

We walk in the rays of a beautiful sun!



# ARC 481 a/581 a

Instructor: Sheehan Wachter

Semester: Fall 2021

Schedule: Tu 9:30-11:50 Th 11:00-11:50

M a t e r i a l

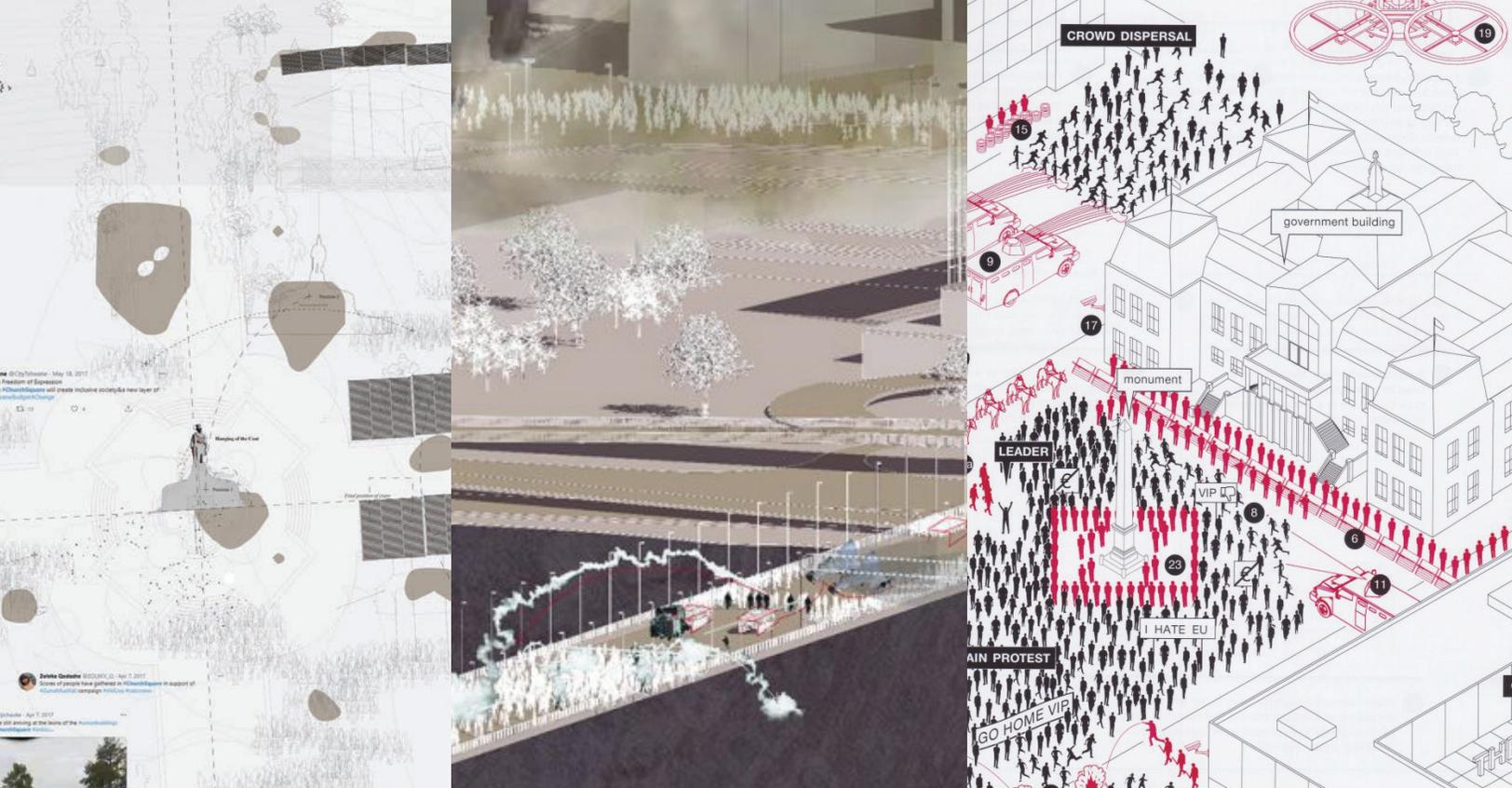
Embodied Computation  
Lab, The Living

P e r f o r m a n c e

Michael Hensel, Defne  
Sunguroglu Hensel.

This course will develop knowledge through investigations of material processes of renewable, waste to resources, high performance, or emerging materials. The course will employ advanced techniques in digital modeling, simulation, and analysis, to further understand the potential architectural use and performance of these materials. This course will explore these issues through a process of not only physical prototyping but digital fabrication techniques as the impetus for design

F a b r i c a t i o n



illustrations by Sumayya Vally, Roanne Moodley, Theo Deuttinger

# Architecture + Performance

ARC 491p / 591p

Instructor: Beth M Weinstein, Ph.D.

Fall 2021, Mondays 5-8pm, 3-CU

This course investigates the nexus of architecture and performance, and particularly the eventfulness of space through architectural, performance and performance studies methods. In this course, students will be introduced to architectural, performance and related social, cultural and critical theories and engage in case-study research of built and speculative spaces. Depending on the semester's focus, case study spaces may include purpose-built event spaces and/or public structures and institutions, urban spaces and landscapes that are re-imagined through daily rituals, durational occupations, or other unique events. In Fall 2021, we will examine public spaces; subtopics will include power, demarcation, resistances, occupations, obstacles, rehearsals and celebrations. Students will work with and through performative concepts and practices in several ways: through writing and discussion; through research and analysis; and through critical and creative methods that may include drawing, modelling, and other visual media as well as documented situated and embodied practices. Guest speakers will zoom in to share their expertise about performances in and of space; researching, documenting and speculating about events. Performances both re-inscribe and challenge norms; we will interrogate space through performance as a means to explore how space performs, who and what does (not) appear and perform, and how ephemeral spatial events can give space and place to the previously invisible, to the contested nature of space.

Covid-permitting, this course will include one optional out-of-town group trip to research and experience a significant urban event, such as the Chicago Architecture Biennial (from Sept. 2021) or New York's Performa 2021 Biennial (Oct 13 and 31).

for more information, contact [bmw99@arizona.edu](mailto:bmw99@arizona.edu)



FALL 2021

ARC 461P/561P - Professor Youssef  
MS Arch Faculty Advisor, Design and Energy Conservation (DEC)

College of Architecture, Planning, and Landscape Architecture

# ENVIRONMENTAL SCIENCE TECHNOLOGIES

**MASTER YOUR UNDERSTANDING OF THE MOST IMPORTANT  
SUSTAINABLE ENVIRONMENTAL DESIGN PRINCIPLES**

This comprehensive course focuses on understanding sustainable design through investigation of five of the most important environmental design principles: 1) Human Thermal Comfort, 2) Architecture Daylight, 3) Precise Shading Strategies, 4) Natural Ventilation, and 5) Sectional Application.

These 5 modules focus on laboratory testing and field investigation of students' scaled models to verify thermal and visual performance of their current proposed designs. Sustainability will be achieved through empirical iterative investigation of a series of design improvements using advanced equipment and instruments in the House Energy Doctor laboratory. Final presentations and documentation of improved designs will provide scientific materials suitable for publications and funded grants.

All instruments and tools in the laboratory are developed and manufactured by House Energy Doctor Faculty and Students.

Class time

**Tuesday**

**12:30 to 3:15**

## **MODULE I: Human Thermal Comfort**

Develop a thorough understanding of methods of investigating human thermal comfort outdoors through advanced data acquisition systems using specially assembled climate stations.

## **MODULE II: Daylight**

Using the Overcast Sky Simulator to investigate efficiency daylight design in architecture spaces. A 16-Sensor Megatron Data Logger is used in 1/4" scale models that predicts lux intensities at different intervals.

## **MODULE III: Shading**

Understand fenestrations and whole building shading through the use of a heliolux to demonstrate visual comfort and energy consumption in architecture.

## **MODULE IV: Natural Ventilation**

Develop mastery of natural ventilation and its possibilities for reduced energy use of architecture using a boundary layer contractionless wind tunnel apparatus, equipped with turbulence development and test chambers.

## **MODULE V: Sectional Application**

Build a scaled sectional model to reveal simultaneously the interior and exterior profiles of a building that is precisely designed to address the four prior environmental phenomena.



For more information contact: Dr. Youssef  
e-mail: [omarmky@arizona.edu](mailto:omarmky@arizona.edu)



COLLEGE OF ARCHITECTURE, PLANNING  
& LANDSCAPE ARCHITECTURE

## School of Landscape Architecture & Planning

### School of Landscape Architecture and Planning Electives - Fall 2021

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*Undergraduate - General Education*

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**LAR 150B1 American Design on the Land (Gen Ed Tier I Individuals and Societies) (3) Fully Online, Lee** This course is broad exploration of individuals from diverse backgrounds who have helped shape the American landscape. Examination of original writings, and built environments including cities, parks, gardens, vernacular expressions, and preserves of wild, scenic, and cultural landscapes will provide the framework for discussion about landscape design as a comprehensive art form and dialog between man and nature.

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**PLG 211 Sex in the City (Gen Ed Tier II Individuals and Societies, Diversity Emphasis) (3) Fully Online, Iroz-Elardo** This class is designed to illuminate how gender - as an identity - and sex - as a series of public and private activities, a commodity or economic determinant, and a part of identity - shape urban communities and are themselves shaped by urban planning. This class explores the implications of what it means to plan for different people in a variety of urban contexts- e.g., transportation safety, homeless women shelters, perceived fear of public space, design of public parks, accessibility of groceries- while addressing the overarching questions:  
. Who plans for cities? And whom are cities planned for?  
. How are communities shaped by urban planning and policy?  
. Why should we think about the different ways people experience, use, and are shaped by cities? And,  
. Why does it matter to think about gender in the context of urban planning?

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**PLG 256 Sustainable Cities and Societies (Gen Ed Tier II Individuals and Societies) (3) TuTh 3:30pm - 4:45pm Bio Sci East, Rm 100, Stoker** Urbanization and cities within the sustainability framework. Global urbanization, social justice, environmental equity, growth management, "the new urbanism." International cases. Web based projects.

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**LAR 350 Parks and Urban Public Spaces (Gen Ed Tier II Individuals and Societies) (3) Fully Online, Chorover** This course exams the history, function, politics and design of parks, gardens and other urban public spaces in American cities. A typology of public space will be presented and used to examine public life today and how design and public involvement influence the nature of public space. The course will examine contemporary issues in parks and public space such as place-making, environmental integrity and sustainability, diversity and accessibility issues, children and nature, and the privatization of public space.

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*Undergraduate*

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**SBE 201 Sustainable Design and Planning (3) Fully Online, Iuliano** The focus of this course is on sustainable design and planning and is a framework for how we plan, build, and live in our built environments in a way that better balances environmental, social, and economic demands.

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**SBE 221 History of the Built Environment I (3) Fully Online, Zuniga Teran** The study of the history of the built environment provides a general understanding on how human societies have adapted the form of the built environment to their unique cultural, political, economic, climatic, and environmental challenges across time.

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## School of Landscape Architecture and Planning Electives - Fall 2021

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**SBE 301**      **Introduction to Design Thinking (4) Fully Online, Cederberg** This course introduces students to the essential methods of visual communication and ordering systems through a series of interrelated exercises. Techniques such as investigative sketching, freehand drawing, and digital design communication are considered in relation to their potential to reveal the world around us with a heightened sense of awareness. Issues such as place, material, structure and enclosure will be explored empirically and conceptually at a variety of scales and applications. Importantly, this is a interdisciplinary based studio - students enrolled in this course will have the ability to engage in a variety of different design strategies.

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**RED 301**      **Introduction to Real Estate (3) W 4:00pm - 6:30pm Live Online and M Pacheco ILC, Rm 119, Marian** This is an introductory course that provides students interested in the property market introduction and exposure to its people, vocabulary, economic forces, regulatory and environmental frameworks, capital markets, and transaction processes. Completion of the course will prepare students well to take state real estate sales licensing courses if they choose to pursue such a pathway.

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### *Undergraduate and Graduate*

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**PLG 401A/501A**      **Planning Theory and Practice (3) Tu 4pm - 6:30pm Architecture, Rm 200, Adkins** This course is designed for advanced undergraduate students seeking careers in urban/regional planning, architecture, real estate development, and related fields.

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**RED 401/501**      **Intro to Real Estate Finance (3) W 9am-11:30am Live Online & Architecture, Rm A304X, Marian** The focus of this course is the analysis of capital formation in commercial real estate and examination of the tools real estate investors use to make investment decisions. The course includes sections on capital sources, investor concerns and hurdles, data sources, investment fundamentals and tools, discounted cash flow modeling, and pre-tax equity distributions for a range of partnerships.

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**PLG/RED 407/507**      **Survey of Responsible Real Estate Development (3) Fully Online - 7W1, Bidolli** There is an interest in assuring that real estate development of the future is more socially, environmentally, and economically responsible than in the past. Emerging research shows that responsible real estate development can produce competitive short-term and superior long-term financial returns. This introductory course will review sweeping changes occurring in real estate development.

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**PLG/RED 409/509**      **Due Diligence and Entitlements (3) M 5:30pm-8pm Architecture, Rm A304X, Kafka** This course provides students a review of the legal principles that inform and regulate the due diligence and entitlement process that is the basis of every successful real estate transaction.

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**RED 415/515**      **Construction and Project Management (3) Fully Online - 7W1, Currans** The objective of the course is to introduce real estate development students, and those from other majors and programs, to construction management as a component of the real estate development process. The course will introduce students to the fundamentals of building construction, project budget estimation, project management, scheduling, and project leadership. The course will focus both case analyses and discussions of best practices. Industry experts will provide insight and help guide the course substantively. The course will ask students to analyze decisions made by real estate developers about construction management and communicate clearly about construction management and its role in mitigating risk and enhancing project returns.

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## School of Landscape Architecture and Planning Electives - Fall 2021

LAR 420/520	<p><b>Plant Materials (4) TuTh 9:30am - 11:50am Architecture, Rm A304X, Livingston</b> Laboratories focus on identification and description of native and select exotic landscape plants frequently used in landscape design and revegetation in the Southwest. Lectures emphasize terminology, plant care and maintenance, and influence of site conditions and requirements on plant selection.</p>
PLG/RED 425/525	<p><b>Real Estate Market Analysis (3) Fully Online - 7W2, Bidolli</b> This course serves as a primer for the analysis techniques and data sources used to segment real estate markets, quantify demand, and evaluate competing supply. This course considers the balance of demand and supply as a key component to responsible real estate development.</p>
LAR 440/540	<p><b>Contemporary Landscape Architecture (3) F 10am - 12pm Live Online, Macmillan Johnson</b> This course examines 20th and 21st century prominent design figures that have shaped the profession of landscape architecture. Through case reviews of built works including significant gardens, urban designs, recreational areas, corporate landscapes, restored natural sites, heritage sites, waterfront projects, resorts, etc., we will explore the evolution of design ideology and theory in applied landscape architectural practice.</p>
LAR 448/548	<p><b>Conservation Planning &amp; Wildland Recreation (3) Room TBA, Gimblett</b> This course will introduce the concepts and techniques used in the growing field of human use management in outdoor recreation settings. The focus is on the sociological dimensions of the recreation experience and an understanding of the principles, practices, and dilemmas of outdoor recreation management in natural areas.</p>
LAR 450/550 PLG 450/550 SBE 450/550	<p><b>Green Infrastructure (Engagement: Discovery / Sustainability) (3) TuTh 5:30pm - 7pm Live Online &amp; Haury Anthro Bldg, Rm 219, McCormick</b> The goal of this course is the advancement of students' knowledge and capabilities regarding Green Infrastructure concepts and the issues and techniques involved in implementation of Green Infrastructure. The course provides an overview as well as more in-depth coverage of the science, practical context, and creation of Green Infrastructure.</p>
PLG 468/568	<p><b>Urban Transportation Planning (3) W 5pm - 7:30pm Room TBA, Adkins</b> Transportation planning in relation to urban development; techniques and procedures for developing long-range regional plans.</p>
LAR 470 LAR 570	<p><b>Introduction to GIS for Planning and Landscape Architecture (4) Tu 4:30pm - 6:15pm F 8am - 9:45am Architecture, Rm 205 &amp; Fully Online, Li</b> <b>Introduction to GIS for Planning and Landscape Architecture (4) MTh 8am - 9:45am Architecture, Rm 205, Stoker</b> The two emphases of this course are on 1) landscape planning theory and 2) the use of computer-aided spatial analysis techniques within a GIS to solve landscape resource-based problems and develop alternative planning and design solutions. Students will learn techniques in planning and regional landscape resources: visual simulation, computer map overlay, resource modeling, application of research into automated decision-support systems, solving problems through the use of automated spatial modeling and analysis.</p>
ARC/LAR 471F/571F	<p><b>Introduction to Heritage Conservation (Engagement: Professional Development / Interdisciplinarity) (3) Fully Online, Daughtrey</b> An overview of the interdisciplinary paradigms, principles, programs, and players in the field of heritage conservation ranging from local to international contexts.</p>

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## School of Landscape Architecture and Planning Electives - Fall 2021

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**SBE 480/580**      **Research Methods (3) Tu 9am - 12pm Live Online, Stoker / Fully Online, Li** This course is all about answering questions and solving problems in urban environments. Students will get to choose what content to study during the course, i.e. transportation, the environment, social equity, etc. For undergraduate students, their topic can inform the development of a senior capstone in subsequent semesters. Graduate students can use the work from this class to advance their thesis or professional project work.

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**PLG 497S/597S**      **Sustainable Urban Development and Design (3) M 10:30am - 1pm Live Online, Zuniga Teran** Examines contemporary competition between environment, resources (water, energy), social equity, and economic viability in the community development and revitalization arena. Public policy, planning initiatives, design strategies and technical solutions that bridge the conflicting agendas are analyzed. Field investigation of contemporary cases. Appropriate for students specializing in planning, architecture and landscape architecture.

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*Graduate*

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**PLG 514**              **Methods in Urban Planning (4) W 10am - 1pm Architecture Rm 205, Currans** This course explores the practical methods used in urban planning from policy analysis to survey development and administration to comprehensive plan making.

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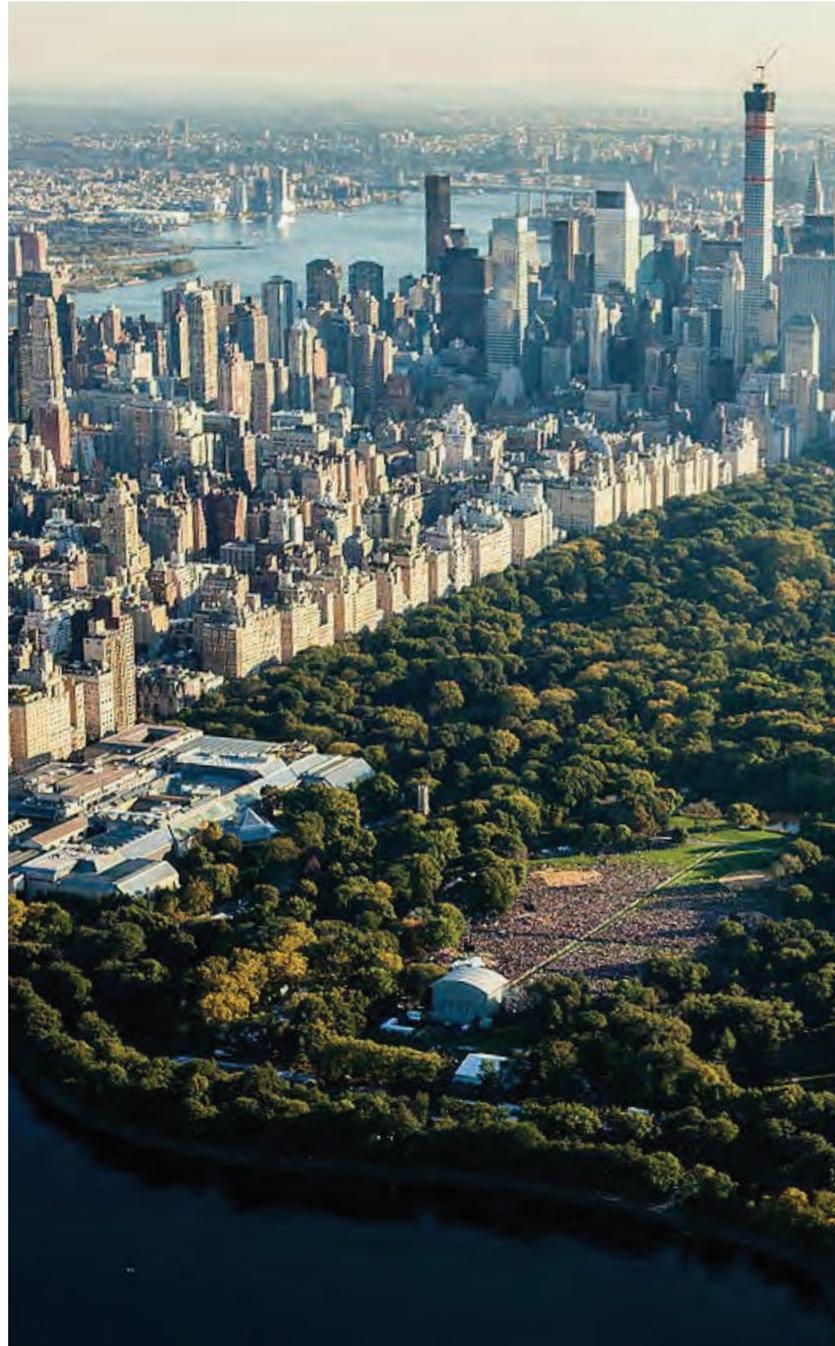


# LAR 150B1 American Design on the Land

## GEN ED TIER I INDIVIDUALS & SOCIETIES

This course is a broad exploration of the natural and built American landscape and how the unique character of American culture continues to shape this place. With readings, discussions, and videos, students will examine dynamic dialogue between humans and nature to understand the creation of the American landscape. Students will understand that both the built environments, such as cities, parks, gardens, and preserves of wild, scenic, and cultural landscapes can be interpreted as physical manifestations of different American ideologies.

Students will learn about the lives of everyday Americans as well as the contributions of great individuals from various cultural backgrounds and periods in time. These will include Native Americans, artists, architects, landscape architects, planners, natural and social scientists, political figures, businessmen and women and writers.



### **CONTACT INFORMATION**

**Matt Lee, Lecturer**  
[mjlee@arizona.edu](mailto:mjlee@arizona.edu)



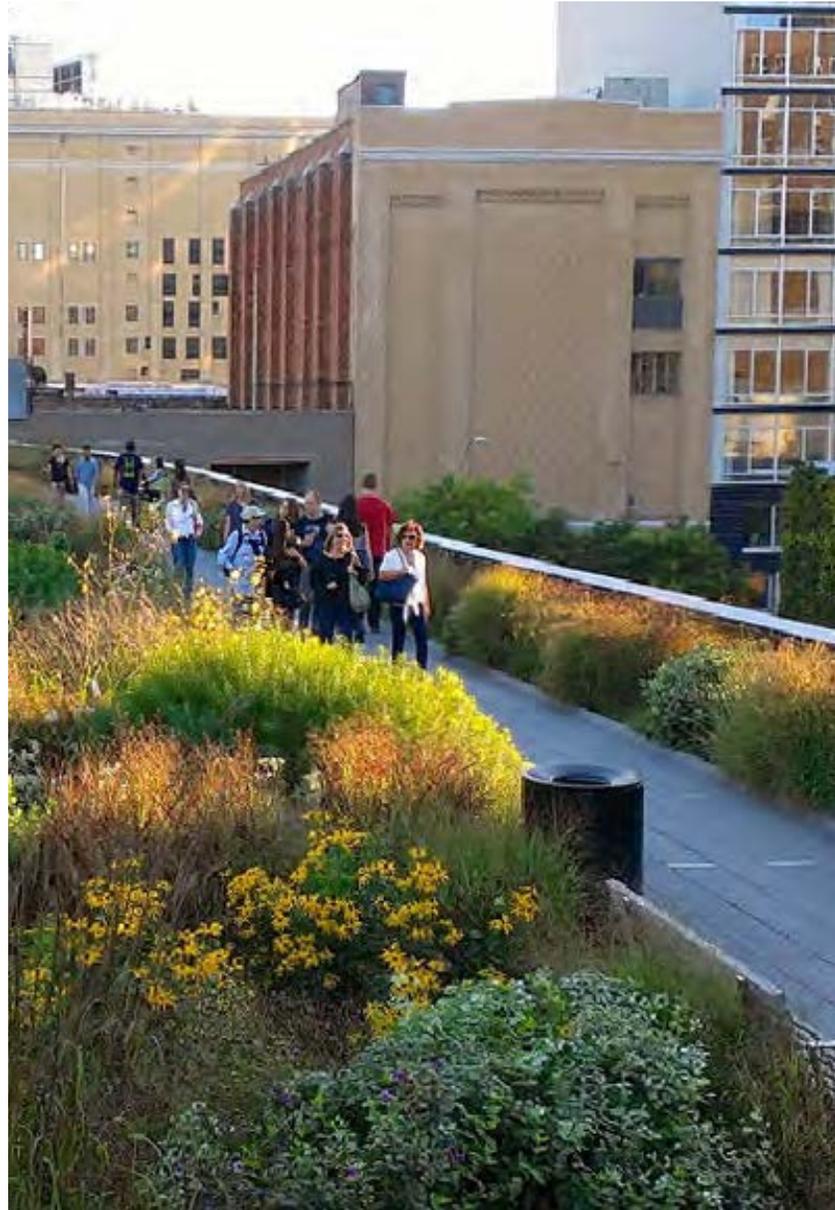
# LAR 350 Parks and Urban Public Spaces

GEN ED TIER II  
INDIVIDUALS & SOCIETIES

*Honors Contract Course*

This course exams the history, function, politics and design of parks, gardens and other urban public spaces in American cities. A typology of public space will be presented and used to examine public life today and how design and public involvement influence the nature of public space. The course will examine contemporary issues in parks and public space such as place-making, environmental integrity and sustainability, diversity and accessibility issues, children and nature, and the privatization of public space.

Students will be exposed to issues and concepts related to parks, gardens and urban public spaces and their relationship to city life and culture. Weekly topics will create structure for lectures, group discussions, and group and individual projects. Through this exploration, students will learn about the importance of public gathering places and access to nature in urban settings and will critically examine the factors that create a vibrant public space. Students will also examine recent trends in public space including sustainability, privatization, urban agriculture, diversity and accessibility issues.



**CONTACT INFORMATION**  
**Gina Chorover, Lecturer**  
**[gchorove@arizona.edu](mailto:gchorove@arizona.edu)**

Curious to know all about those plants around you?  
Plant Materials, **LAR 420/520**, is open to non-majors  
and will be Live Online\* this fall!



You will learn over 175 native and non-native plant species used in built and natural environments.

No required pre-requisites.

Become an official plant nerd!

\*Discussions will be recorded, if designated class time is a conflict for you.



# PLG 202 Cities of the World

GEN ED TIER II  
INDIVIDUALS & SOCIETIES

This course surveys international cities to help students understand the world's urban systems, global variations in urban environments, and the diversity in organization and functioning of cities.

The class examines the interplay between human activities and land, water, transportation, and energy policies that shape the use of urban resources to produce the built environment.

***Learn about the ways in which cities are becoming more vibrant, equitable, greener and more sustainable.***

## Course Objectives

After completing the course requirements, students should be able to:

- Understand the history of the development of cities and how cultural, political, environmental, physical, and economic factors have impacted their development.
- Recognize the impact of practitioners in planning and associated fields of civil engineering, landscape architecture, environmental design, cultural geography and architecture have on the form and function of cities.
- Identify key components that help create a great city while also explaining the complexities involved in how cities operate.
- Discuss the future of city design and how cities can be better designed for social justice, economic equality and environmental sustainability.

## CONTACT INFORMATION

**Gina Chorover, Lecturer**  
[gchorove@arizona.edu](mailto:gchorove@arizona.edu)



**URBAN  
PLANNING  
INFORMED  
BY GENDERED  
USE OF  
SPACE,  
INTERSECTIONAL  
EXPERIENCES,  
& CRITICAL  
THEORIES**

**PLG 211  
SEX  
& THE  
CITY**

**Online**

**Fall 2021 & Spring 2022**

**READ ACADEMIC & POPULAR  
MEDIA EXAMPLES EACH  
WEEK**

**—  
RESPOND IN VIDEO DISCUSSIONS  
OR SHORT WRITING PROMPTS**

**—  
WRITE & DESIGN A MAGAZINE  
ARTICLE FOR FINAL PROJECT**

**—  
LEARN TO USE ADOBE INDESIGN**

**MEETS DIVERSITY AND  
TIER 2 INDIVIDUALS  
& SOCIETY GEN ED  
REQUIREMENTS!**



PLG 401a/501a

# Urban Planning Theory & Practice

What is urban planning?  
Theories of cities and development  
Cities and urban systems  
Advocacy planning  
Social justice and gentrification  
Healthy cities  
Climate mitigation & adaptation  
Growth management  
Urban design and form

Fall 2021

Associate Professor Arlie Adkins

Tuesdays, 4:00 to 6:30 PM



# Urban Transportation Planning

PLG/CE 468/568

Bicycle and Pedestrian Planning and Design • Complete Streets  
Safety Analysis • Urban Design and Streetscapes • Social Equity/Title VI  
Community Impacts • New Technologies • Public Health • Healthy Cities  
Demand Management • Sustainable Transportation • Climate Mitigation

No pre-requisites  
In-demand skills  
Interdisciplinary  
Hands-on

Fall 2021

Associate Professor Arlie Adkins  
Wednesdays, 5:00 to 7:30 PM



## PLG 497s/597s – Sustainable Urban Development and Design

Fall 2021

Instructor: Adriana Zuniga

In-person. Meets on Mondays from 10:30 AM to 1:00 PM in Architecture East, Room A304X



### Course Description

This course provides the theoretical and historic background in which the concept of sustainable development emerged, focusing on issues related to urban environments. We review urban design theory of healthy, livable, and happy cities and ways in which the built environment can be planned and designed to achieve these objectives. The course is divided into three modules that help students transition from theory into practice:

1. **Theory of sustainable urban development** – understanding healthy, livable, and happy cities. During this module, the students will learn about the issues that drove the need for new urban design principles for sustainable urban development.
2. **From theory to practice** – During this module, students will translate theory into practice by examining case studies and the Leadership in Energy and Environmental Design for Neighborhood Development (LEED-ND).
3. **Designing a sustainable neighborhood** – an urban design studio. During this last module, the students will design a sustainable neighborhood using the LEED-ND scorecard as an assessment for sustainable urban development.



# RED 301 Intro to Real Estate



Are you interested in learning more about real estate, the single largest component of wealth in society? In this introductory course, you will learn real estate vocabulary; how to purchase, sell, and improve real estate (from a home to commercial investment properties); and legal, financing and tax considerations.

Guest speakers with over 100 years combined experience include residential and commercial real estate brokers, title executives, real estate attorneys and local executives involved in development and commercial real estate investment. You will also learn about career opportunities in all these fields—some of which have unlimited income possibilities.

*This is a required course in the brand new University of Arizona Minor in Real Estate Development.*

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**OUR IN-PERSON CLASS IS LIMITED TO 35 STUDENTS, SO ENROLL EARLY.**

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**CONTACT INFORMATION**

**James B. Marian MRE CCIM, Lecturer**

**[jbmarian@arizona.edu](mailto:jbmarian@arizona.edu)**



# SBE 195A Introduction to Sustainability

**This first-year colloquium will prepare Sustainable Built Environments and other interested students with insight into sustainable concepts and practices.**

Students will learn about sustainability and its impacts on the built environment from a national and global perspective. This colloquium introduces the methods and standards of the discipline for discovering new knowledge, the values which characterize the field of study, advances in the field, impact on society, and career opportunities. This colloquium also provides an opportunity for students to learn the breadth of knowledge and research areas at the University of Arizona, and as such, guest speakers will be brought in regularly discuss their respective topics.

## Course Objectives

After completing the course requirements, students should be able to:

- Demonstrate a general understanding of sustainability, from national and global perspectives,
- Critically analyze the challenges and trade-offs of creating a more sustainable built environment through weekly journals and classroom discussions, and
- Express concepts learned through active participation in discussions with other students, instructors, and guest speakers.

## CONTACT INFORMATION

**Nicole Iroz-Elardo**

**[irozelardo@arizona.edu](mailto:irozelardo@arizona.edu)**

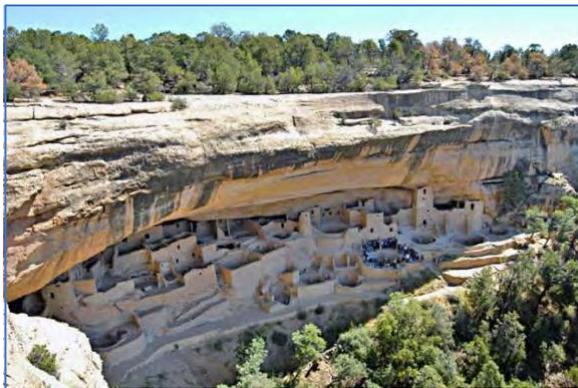
## Fall and Spring Courses: SBE 221 & SBE 222

### History of the Built Environment Part I & II

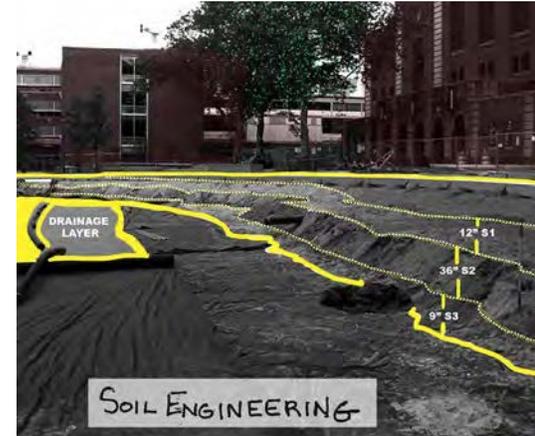
The study of the history of the built environment provides a general understanding on how human societies have adapted their settlements to their unique cultural, political, economic, climatic, and environmental challenges. These two courses examine the built environment through the lens of the six global climatic zones, providing an opportunity to compare and contrast solutions across the world and throughout various cultures in different historic times; at the city, building, and landscape scales.

The first course covers hot and arid climates, hot and humid climates, and cold and arid climates. Students will learn examples from the past to help inform sustainable solutions to the multiple and complex challenges that our cities face today and in the future.

The second course is taught in the spring semester and covers the following climatic zones: cold and humid, temperate and hot, and temperate and humid. Together, these two courses take students on an intellectual journey across the five inhabited continents and throughout different points in history.



These are **ONLINE COURSES** taught by Dr. Adriana Zuniga-Teran, Assistant Research Scientist at the School of Landscape Architecture and Planning, and the Udall Center for Studies in Public Policy. For questions, please email Dr. Zuniga at [aazuniga@email.arizona.edu](mailto:aazuniga@email.arizona.edu)



# SBE 301 Intro to Design Thinking

This course introduces students to the essential methods of visual communication and oral presentation related to design through a series of interrelated exercises that use digital design software. Techniques such as investigative sketching, freehand drawing, and digital design communication are combined with personal communication, interviews and research related to the built environment. Students enrolled in this course will have the ability to see varied approaches and engage in a variety of different design strategies.

## Course Objectives

After completing the course requirements, students should be able to:

- Apply design thinking processes to real world problems:
  - Describe the role of empathy in design thinking and use observation and interviewing in their process
  - Define and frame problems as a base for further problem solving
  - Generate a variety of unique ideas and critically refine them
  - Use sketching and prototyping techniques in order to conduct experiments
  - Gain experience and practice in design and improvements through iterations
- Learn and apply oral communication/presentation skills.
- Practice giving and receiving critical feedback
- Learn and apply basic visual communications skills and graphic design fundamentals to communicate design ideas.
- Recognize the importance of collaboration and teamwork in problem-solving

Header images: SBE 301 student work

**CONTACT INFORMATION**  
**Kelly Cederberg, Lecturer**  
**kellyv@arizona.edu**