Arch 301 – Digital Modeling and Fabrication

CLASS TIME: Tuesdays, 6:00PM , to 9:00PM

INSTRUCTOR: Vincent Marchetto

TYPE OF COURSE: Arch Elective



Like architecture, digital fabrication sits at the intersection of art and science. It requires creative thinking to imagine complex geometry and an engineer's mind to bring the idea into reality. When creativity and engineering join forces, nothing is impossible.

This course will give students practical skills that will allow them to create digital CAD (computer-aided design) data in Rhino that can be fed directly to CAM (computer-aided manufacturing) equipment. The assignments will give students experience with 3D printers, CNC mills, and laser cutters at NJIT's Makerspace.

The first half of the course will consist of short assignments meant to introduce students to different digital fabrication techniques. The second half of the course will be a final assignment allowing students more time to develop a design before going forward with production. Students will make a mixed-medium model incorporating LED lighting. This introduces students to the complications of producing parts that connect and house electrical components.

ARCH 301 Technology– Digital Modeling & Fabrication

CLASS TIME: Wednesday, 6:00pm -8:50pm

INSTRUCTOR: Sunny Li xiaosunny.li@njit.edu

TYPE OF COURSE: Technology Elective

Digital fabrication enables designers to translate conceptual ideas into tangible prototypes, functional objects, and art installations. This course introduces computational design using Rhino and Grasshopper, with a focus on precision, material efficiency, and fabrication feasibility. Students will generate digital models for **3D printing, CNC milling, and laser cutting**, gaining hands-on experience at NJIT's Makerspace.

Assignments emphasize waste reduction, multi-material integration, and assembly logic, culminating in a final project that incorporates interactive elements relevant to furniture, installations, or small-scale products.

New Jersey Institute of Technology | Hillier College of Architecture and Design Fall 2025

ARCH 301: Digital Modeling & Fabrication

Moises Quintero Morales | Mq59@njit.edu

Time	Monday: 6:00pm – 8:50pm
<u>Location</u>	Blank Building, Room: 000

"Give ordinary people the right tools, and they will design and build the most extraordinary things." -Neil Gershenfeld, MIT Professor

Course Overview: Credits: 03 | Contact Hours: 03 | Meeting Schedule: Once a week

Digital fabrication is an exciting and emerging field that will radically transform the future of architecture and construction. This course will give students practical skills that will allow them to create digital CAD (computer-aided design) data that can be input directly to digital manufacturing equipment. Students will get hands-on experience with 3D printers and laser cutters at NJIT's Makerspace.

Students will explore ways to introduce creativity to the often linear process of digital fabrication. The course will go through the entire creative process from an initial sketch to finished product, pushing material capabilities to create exciting outcomes in both form and material relationships. Finally, there will be an ongoing discussion about what it means for an architect to live in a world where the paradigm of mass production becomes mass customization.

Assignment Weights:

To successfully complete the course, you must submit the following. Completion alone of does not guarantee a passing grade for the course.

1.	Assignment 01 – Research Assignment	05%
2.	Assignment 02 – 3D Printing Assignment	10%

- 3. Assignment 03 Laser Cutting Assignment 14%
- 4. Assignment 04 Hybrid Assignment
- 20% 5. Assignment 05 – Final Project 30%
- 6. Attendance & Participation 20%

Software Used in Class

3D Modeling	Rhino 8 / Grasshopper
Laser Cutting	AutoCAD
3D Printing	Slicing – Cura
Research	Microsoft 365 Suite
Presentations	Adobe Creative Suite

Architecture: Image and Word

The Works of Eight Architectural Firms

Architecture 332

Professor Stephen Zdepski, NCARB, RA, PP New Jersey School of Architecture / HCAD / NJIT

Fall Semester 2024



A. Course Objectives:

Focused upon the works of eight contemporary architectural firms, the course presents films on Architecture, researches and analyzes the question "What is great architecture?"

What we think is true about architects and their work can be wrong. Internet searches and surveys of architecture simplify great architecture. Climatic, cultural and technical issues of design can never be adequately described in a few photographs or drawings. The fundamentally important issues of scale, materiality and technology, performance, relationship between the numerous determinants of architecture, and the significance of context at many scales are masked by instant, edited and fractured media. Yet, architectural education and practice is predicated upon a sophisticated understanding of contemporary architecture.

This course is divided into two parts; a) films which focus upon the merits of eight contemporary architects and their work, and b) analyzing their great works of architecture. The popular notion of the architect, as creator and form giver, falsely suggests that each designer is working discretely within their own creative realm. And, that architecture is created by a single insightful moment or unique personality.

The images and words presented in this course clearly illustrate the common set of issues, and the comprehensiveness in which all great architects are engaged. While the visual, technical and formal characteristics of their designs vary; what is considered, and why decisions are made in architecture have a common theme that surpasses circumstantial or personal motivation.

A historical perspective suggests that the realm of architecture has remained remarkably consistent over centuries, if not millennium. Most importantly, this commonality of design values and considerations is the basis by which great architecture is created and ultimately valued over time. ARCH 335. F25. DIGITAL **TECTONICS.** Digital Environments. Wednesday 6:00pm-8:50pm. office hours by appointment. Instructor: MARIA HURTADO DE MENDOZA. Associate Professor of Architecture

The 'sails' of the Sydney Opera House are all sections of the same sphere.



Course overview:

This course, design oriented, investigates the relationship between architectural space and design thinking, and its physical construction and materialization. Students are asked to investigate the reasons behind various tectonics. A series of presentations and exercises will help the students to achieve, through examples, a hopefully rigorous approach to the conception of architectural space through making. By analyzing, drawing and producing original ideas on structures, skins, assemblages, form and space making methodologies, designed to be built, that may, or may not, be aided by digital tools, an architecture will be rationalized through digital operations.

-On tectonics, tectonic thinking, a possible definition; evolving theory, avoiding confrontation

-From tectonics, precedent approach, reverse engineering, graphic analysis, digital environments, the unexpected

ARCH 337. Building Information Modeling

Brandon Warshofsky, AIA, NCARB | bwarshofsky@gmail.com / brw3@njit.edu | 908.907.0736 c

Office Hours: by appointment

COURSE STRUCTURE	3 Credits, 3 Contact Hours		
	Wednesday	6:00 PM - 8:50 PM	
Delivery Method	In Person		
CRN	90106		
Section	102		

COURSE DESCRIPTION

Prerequisites: ARCH 156 or AD 112. This course explores both technical and philosophical approaches to the use of the computer in architectural analysis, design development, information management, and document delivery. Autodesk Building Systems and Autodesk Revit Building will be used for 3D modeling and 2D documentation employing a systems-approach framework for spatial allocation, energy analysis, and structural considerations. The workings of the foundational information databases of the respective software will be thoroughly explored. Project requirements will include building program resolution, solar analysis, asset scheduling, document layout, and design visualization. Proficiency with Autodesk Autocad (2D) and understanding of general CAD principles are required prerequisites.

LEARNING AND TEACHING CULTURE POLICY

In addition to the overarching values and ethics of the university, the New Jersey School of Architecture is dedicated to optimism, diversity and solidarity, professional conduct, constructive evaluation and instruction, collaborative community, health and wellbeing, time management and school-life-work balance, respectful stewardship and space management, and well-rounded enrichment. The pedagogy of architecture and design is as complex as it is rewarding, and as dynamically evolving as the people who learn and teach it. This understanding resides at the core of the NJSOA Learning and Teaching Culture Policy.

COURSE VALUES

These principles inform the objectives of the architectural education as maintained by the NAAB:

- 1. **"Shared Responsibility.** The education of an architect is a responsibility shared by the academy and the profession in trust for the broader society and the public good.
- 2. Best Practices. The ... processes are based on best practices in professional and specialized accreditation.
- 3. **Program Accountability.** Architecture degree programs are accountable for the learning of their students....
- 4. **Preparing Graduates for Practice.** A NAAB-accredited degree prepares students to live and work in a diverse world: to think critically; to make informed decisions; to communicate effectively; to engage in life-long learning; and to exercise the unique knowledge and skills required to work and develop as professionals. Graduates are prepared for architectural internship, set on the pathway to examination and licensure, and prepared to engage in related fields.
- 5. **Constant Conditions for Diverse Contexts.** The NAAB Conditions for Accreditation are broadly defined and achievement-oriented so that programs may meet these standards within the framework of their mission and vision, allowing for initiative and innovation ..."

TEXTS

Books, articles, and journal studies will be assigned throughout the semester as they pertain to issues critical to the development of the project at the time. As always, individual initiative is expected from each student to seek out readings and sources for inspiration, insight, and guidance.

Books:

- Building Construction Illustrated by Francis D. K. Ching
- Architectural Graphic Standards, Student Edition, American Institute of Architects, Keith E. Hedges

References:

- Keyboard Shortcuts: <u>https://www.autodesk.com/shortcuts/revit</u>
- Revit User Guide: http://help.autodesk.com/view/RVT/2024/ENU/
- RevitPythonShell : Tool to let you work with the RevitAPI using the IronPython programming language.

Revit Architecture Forum:

- Great to find answers from experts and very specific questions from users. It's likely that if you run into a problem, then someone else has and you can find the thread on this forum.
- https://forums.autodesk.com/t5/revit-architecture-forum/bd-p/133

ARCH 337 Technology – Building Information Modeling (BIM)

Instructor: <u>Gayatri Desai</u> Course Type: Technology Elective Class Time: Tuesdays, 6:00 PM – 8:50 PM

Course Description:

This course introduces students to **Building Information Modeling (BIM)** as a critical tool in contemporary architectural design, documentation, and project delivery. Through hands-on exercises and real-world case studies, students will develop proficiency in BIM workflows, parametric modeling, and data-driven decision-making in design.

Key topics include:

- Fundamentals of BIM and its role in the AEC industry
- 3D modeling, visualization, and technical documentation
- Collaboration and coordination across disciplines
- Automation and computational design integration
- BIM standards, best practices, and emerging technologies

By the end of the course, students will gain a strong foundation in BIM methodologies, preparing them to implement digital design strategies effectively in academic and professional settings.



Arch 337: Building Information Modeling 3 credits, 3 contact hours.

CLASS TIME: Thursday 6:00 PM - 8:50 PM

INSTRUCTOR: John Cays

TYPE OF COURSE: Technology Elective

Prerequisites: ARCH 156 or AD 112. Proficiency with Autodesk AutoCAD (2D) and understanding of general CAD principles.

Course Overview: This course explores both technical and philosophical approaches to the use of the computer in architectural analysis, design development, information management, and document delivery. Autodesk Building Systems and Autodesk Revit Building will be used for 3D modeling and 2D documentation employing a systems-approach framework for spatial allocation, energy analysis, and structural considerations. The workings of the foundational information databases of the respective software will be thoroughly explored. Project requirements will include building program resolution, solar analysis, asset scheduling, document layout, and design visualization.

Arch 337 – BUILDING INFORMATION MODELING

CLASS TIME: Thursday, 6:00PM to 8:50PM

INSTRUCTOR: Hayyatu-deen Ikharo

TYPE OF COURSE: Arch Elective

Image

(optional)

This course introduces students to building information modeling (BIM) using Autodesk Revit within the context of the architecture industry. Students will learn how to design, create, and manage digital representations of both the physical and functional characteristics of spaces. The course covers fundamental Revit tools and techniques, including modeling, documentation, and collaboration.

Upon completing the course, students will be proficient in creating 3D computer models according to established industry standards. They will understand the transition from 2D to 3D representations and gain the skills to analyze and extract building information data from a Revit model. At the end of the course, students will be able to:

- Create building models employing structural grids and support systems.
- Design and integrate essential building components, including levels, floors, and roofs.
- Utilize parametric modeling techniques to enhance 3D design capabilities.
- Incorporate mechanical, electrical, and plumbing (MEP) systems into building models.
- Extract and interpret data from site topography to inform design decisions.
- Produce quality building documentation and specifications.
- · Generate high-quality, annotated building section drawings and renderings.

Arch 432 – P3 POST PROCESSING PRESENTATION

CLASS TIME: Mondays, 6:00PM to 9:00PM

INSTRUCTOR: Dincer Savaskan

TYPE OF COURSE: Technical Elective

Throughout history, art has encompassed much more than a literal or photorealistic interpretation of reality. Art has captured narratives, depicted importance, skewed perspectives (or eschewed completely), subverted reality and transcended mediums. Representation of Architecture shares the similar aspirations. In this course, we will study methods of representation which purposefully avoid the literal, to create room for exploration of the subjective. We will consider how to represent Architecture (with a capital A) as Art. We will engage with both traditional and contemporary methods of form-making and image-finding, explore the work and processes of Artists and reflect on Architecture and Art in theory.

Course focuses on instructing series of art tools and design principles such as hand drawing techniques, perspective studies, color theory, tonal value studies, scenography/ composition as well as contemporary Architectural/Art theories such as phenomenology, organic/inorganic forms, topological architecture, new materialism, Object Oriented Ontology and so on. These studies will be explored through various mediums such as sketching, painting (with acrylics), collage making, diagramming, film making and model making.

Students are challenged with in class hands-on experimentations, weekly assignments and final projects. If you are willing to explore your creativity, improve your "eye", have a glimpse of other creative disciplines and would like to commit to it weekly this class is for you.



Dynamic mark making study. Group class assignment. Acrylic paint.

ARCH 483: Architectural Glass Design and Prototyping

CLASS TIME: In-Person, Thursdays 6:00 PM to 8:50 PM

INSTRUCTOR: Gosia Pawlowska, mpp34@njit.edu

TYPE OF COURSE: Technology Elective



Above: images from Fall 2024 Architectural glass elective course at NJIT.

How can architects leverage the material intelligence of glass in the built environment? This course will examine glass as a material, through historical and contemporary case studies, and a hands-on prototyping exercise made possible thanks to the HCAD fabrication facilities in collaboration with a local glass studio in Newark, <u>Glassroots</u>.

By learning traditional craft techniques and new approaches to mold-making that utilize digital fabrication, we will speculate how emerging technologies have the potential to expand the performance and environmental effects of architectural glazing. Previous experience with glass is not required. Students can expect to gain a basic understanding of glass material properties and the opportunities that exist around the design and manufacture of architectural glazing systems.

Robert Hutchinson Rsh2@njit.edu

Fall 2025 Proposed Course: Building Resilience – Strategies for Architects in a Changing World

Course Description:

In an era marked by rapid urbanization, climate change, and social upheaval, architects play a pivotal role in shaping resilient built environments that can withstand and adapt to emerging challenges. This course empowers architecture students with the knowledge, skills, and mindset necessary to design resilient structures and communities capable of thriving in dynamic and uncertain conditions.

Through a blend of theoretical study, case studies, design exercises, and guest lectures from industry experts, students will explore the multifaceted concept of resilience and its application within the architectural profession. From understanding the fundamentals of resilience to integrating innovative design strategies, participants will embark on a journey to reimagine architecture in the context of uncertainty and change.

Key topics covered include:

1. Introduction to Resilient Architecture: Defining resilience in the context of architecture and urban design, and examining its importance in addressing contemporary challenges such as climate change, urbanization, and social inequality.

2. Site Analysis and Risk Assessment: Utilizing site analysis techniques to identify environmental, social, and economic risks that may impact the longevity and functionality of architectural projects. Students will learn to assess vulnerabilities and opportunities inherent in different contexts.

3. Climate-Responsive Design: Exploring strategies for designing buildings and urban spaces that respond adaptively to changing climatic conditions. Topics include passive design principles, green infrastructure, and innovative materials for climate resilience.

4. Resilient Infrastructure and Technological Innovation: Investigating emerging technologies and design solutions that enhance the resilience of infrastructure systems, including energy, water, transportation, and communication networks.

5. Case Studies in Resilient Architecture: Analyzing real-world examples of resilient architecture and urban design projects from around the globe. Students will deconstruct successful case studies, extract lessons learned, and apply insights to their own design proposals.

ARCH 483 Technology– ST: The Business of Architecture in the age of Artificial Intelligence (AI)

CLASS TIME: Tuesdays/Fridays, 8:30am -9:50am

INSTRUCTOR: Sunny Li xiaosunny.li@njit.edu

TYPE OF COURSE: Technology Elective



Being proficient in AI tools is a must for architects today—but understanding how these technologies transform operational dynamics, technological integration and competence, leadership, and managerial excellence is also essential. This course goes beyond AI as a design tool, exploring its role in business strategy, firm operations, leadership, and entrepreneurship in architecture.

Through case studies, experiential learning, and applied research, students will engage with critical perspectives on architectural practice, including the evolution of firm structures, business models, workforce dynamics, and the profession's relationship with real estate and construction industries. These frameworks provide a lens to analyze how architectural firms leverage AI to streamline operations, create new business opportunities, and beyond. The course also introduces students to industry ecosystems and funding opportunities, providing insights into how firms position themselves in an increasingly tech-driven landscape.

The second half of the course focuses on AI-driven disruptions, encouraging students to explore emerging trends and anticipate how AI and related innovations might reshape the profession in the near future. Students will engage in applied research, identifying key industry disruptors. Guest speakers and field visits will provide firsthand perspectives on the evolving role of AI in architectural practice and the AEC industry.

Learning Outcomes:

- Ability to analyze Al's impact on business models, leadership, and firm operations.
- Developing research skills to investigate emerging technologies as disruptors in the AEC and the associated industries.
- Understanding entrepreneurial opportunities and business models in AI-empowered practice.
- Evaluating automation, digital workflows, and data-driven decision-making in architecture.
- Gaining strategic insights into the evolving role of AI in architectural practice and the AEC industry.

ARCH 483 Technology–ST: Bio-based Materials: From Extraction to Regeneration

CLASS TIME: Mondays, 6:00PM to 8:50PM

INSTRUCTOR: Inés Yupanqui, RA

TYPE OF COURSE: Technology Elective



Kristine, Lisa. "Brothers Carrying Stone – Nepal."

The building industry accounts for nearly 40%¹ of global carbon emissions, driven by the extraction and processing of conventional materials like concrete, steel and others. These materials come with hidden costs—high environmental impact, health risks from toxic chemicals, and unethical labor practices. This course explores bio-based alternatives—straw, hemp, earth, bamboo, cork, and timber—that reduce carbon footprints while offering durable and innovative design solutions.

Through lectures, case studies, and applied research, students will analyze material supply chains, life cycles, and sourcing. The instructor will present data on carbon emissions, toxicity, and labor exploitation in industrial material production, alongside contemporary examples of bio-based construction.

Each student will select a bio-based material, study its structural properties and fabrication processes, and analyze a case study where it has been successfully implemented. This research will inform the design of a pavilion, integrating material-specific detailing, structural systems, and low-impact construction methods. By the end of the course, students will have the technical expertise to make informed, ethical, and sustainable material choices in architectural practice.

¹ "The Building Sector Must Change to Meet Climate Goals," *World Economic Forum*, June 2024, <u>https://www.weforum.org/stories/2024/06/building-sector-climate-change-construction-materials/</u>.

ARCH 483 – PASSIVE HOUSE AND BEYOND

CLASS TIME: Mondays & Wednesdays, 10:00AM to 11:20AM

INSTRUCTOR: Hilary Padget, NCARB, CPHC

TYPE OF COURSE: Elective/Special Topic

This course introduces students to Passive House design by practicing Passive House architects as a foundation for high-performance, low-carbon architecture—and then pushes beyond it to explore how building performance can actively shape architectural form, experience, and impact.

The semester is divided into two parts. The first half introduces the technical fundamentals of Passive House: thermal performance, airtight construction, high-performance windows, ventilation with heat recovery, and thermal-bridge-free detailing. Lectures are complemented by real-world case studies and guest speakers from across the industry, including high-performance product manufacturers, mechanical designers, and building science specialists and a high performance building tour.

The second half of the course engages students in hands-on performance analysis and design iteration. Using the SketchUp plug-in designPH and the Passive House Planning Package (PHPP), students will evaluate a recent project's energy performance and propose design improvements using the tools and concepts explored in class. Students are encouraged to creatively reimagine architectural elements—massing, envelope, program placement—not just for aesthetics, but as contributors to performance and comfort.

By semester's end, students will understand how rigorous energy performance goals can serve as a generative force in design, expanding the possibilities for sustainable, resilient, and architecturally ambitious buildings.

ARCH 483ST: Architect as Influencer

Course Syllabus

NJIT Fall 2025

Instructor: Joseph M. Berlinghieri, NCARB, AIA <u>imb232@njit.edu</u>

Monday, 6:00 – 8:50 PM New Jersey Institute of Technology Hillier College of Architecture + Design

Type of Course: Elective, Face-to-Face Seminar Format, 3 credits 3 contact hours per week meets once a week

Prerequisites: ARCH 224, 304 & 314 OR ARCH 323, 304 & 327

@architectangie, Angie Lane, Instagram, 2022

Course Description:

The evolving digital geographies of the nascent social media age are swiftly rendering the traditional architectural portfolio obsolete. Be they electronic or hard copy, the "artifact" portfolios of the past are neither agile nor dynamic enough to represent professionals and their work in the 21st century. It is critical that emerging architects have a polished digital and social media presence to enter the profession. This seminar will utilize rigorous critique of conventional architectural representation and analyses of successful online presences in a variety of fields. Through this research, students will redefine "portfolio" as a digital strategy and create a well-curated, cross-platform presence that represents and promotes their architectural work and professional persona.

With a foundation in architectural history, theory, and criticism, this seminar will seek to reformat architectural representation for the 21st Century. Through readings, case studies, statistical analysis, and rigorous internet/social media posting, students will develop revolutionary palettes, methodologies, and strategies for representing themselves and their work within the digital contexts their future employers and clients currently occupy.

Arch 483 Techniques for Crafting Physical Study Models

CLASS TIME: Monday and Thursday 11:30-12:50

INSTRUCTOR: Victoria Baran

TYPE OF COURSE: Technology Elective

This course is a fabrication seminar that addresses the history and techniques of traditional crafting and physical model-making methods, and applies them to contemporary tools for constructing physical study- and detailed-models. Each week a different technique and model type will be introduced with a presentation of precedents, analysis and relevant techniques. In turn, students will have an assignment related to the topic, both materials and techniqueS. Each session will be used as design and fabrication time because the intention is for students to learn from each other's challenges and discoveries. Some of the model types are: silhouettes, diagrams, bas-relief, sectional, modular, vignettes, context, massing, installation, and large-scale. Tools, techniques and materials will continuously be at the forefront of crafting the assignments.

*Students will need an X-acto knife and purchase other tools and materials as wanted or needed. Materials may be found, used or remnants for several assignments. This course is NOT meant to cost significant funds, unless students are pursuing a material or tool that is specific to the project and outside of techniques covered.

Models themselves can be visionary in their conception and easily manuevered. The human eye perceives space and volume of a three-dimensional representation more accurately than viewing a two-dimensional illustration. As a result, the clarity of a tangible depiction of a design concept or proposed structure is steps closer to expressing spatial intentions or candidly revealing shortcomings of the design. Physical study models have been used in the art and architecture design process since ancient times and it is prudent to continue to use this invaluable tool.







Arch 531 –HISTORY OF MODERN ARCHITECTURE

CLASS TIME: Tuesdays, Fridays, 10:00AM to 11:20AM

INSTRUCTOR: <u>Ersin Altin</u>

TYPE OF COURSE: History Theory Elective



Prerequisites: <u>ARCH 211</u>. This course examines the major tendencies of architectural practice and theory in the 20th century. Formal and cultural evolution of modernism is considered in relation to social, political, economic, and technological developments that informed its key buildings, projects, and texts.

Students will learn about and think critically on the perception, utilization, and evolutionary process of modern architecture over time, as well as its relationship with other fields such as art, design, and engineering. Through the analysis of landmark structures and influential architects, students will gain insight into the interplay between architectural innovation and broader cultural trends. Although the emphasis will be on modern architecture, urbanism, and the built environment—and how these varied over time and in different contexts—the course aims to develop a more holistic and global approach that ties modern practices to older and other architectural traditions. This will help (re)define modern architecture and underscore and challenge its Western-centric history (which is tied to the Industrial Revolution and its legacy) by diversifying sources and developing a global perspective.

ARCH 533 History/Theory – History of American Architecture

CLASS TIME: Tuesdays and Fridays, 10:00am to 11:20am [awaiting confirmation from chair] INSTRUCTOR: Addison Godel TYPE OF COURSE: History/Theory Elective PREREQUISITE(S): ARCH 211







Siegel House, Edward T. Bowser, Jr. (Essex Falls, NJ, 1956)



Arcus Center, Studio Gang (Kalamazoo, MI, 2014)

This course investigates the emergence and development of architecture and urbanism in what is now the United States, from before European contact to the early 21st century. Focus is on building typologies and urban morphologies that contributed to a definition of a distinctive "American" approach to form, style, and settlement. The complex and enduring influence of colonization, enslavement, industrialization, and immigration is emphasized throughout.

Through short lectures, seminar discussions, and student presentations, this course will explore influential projects and recurring types, as well as materials systems and stylistic movements distinct to "American" architecture. In the process, students will refine their skills of presenting and discussing ideas in a precise, in-depth way, particularly through the collaborative examination of individual projects in drawings and photographs.



(David Hockney, A Bigger Splash, 1967)

Landscape and American Culture (Arch 536)

Course Detail

ARCH 536: Landscape and American Culture Mondays & Thursdays 10am - 11:20am Instructor: Marcus Wilford <u>marcus.wilford@njit.edu</u>

Course Description

Landscape and Architecture are political forces that shape design, aesthetics, infrastructure, and culture. The course begins with an exploration of indigenous built environments in Pre-Colonial America, emphasizing the interconnected relationship between people, culture, and land. This sets the stage for a critical examination of American colonialism, land parceling, and the historical narratives of frontierism and Manifest Destiny, which shaped both the physical environment and societal attitudes toward land and ownership.

The morphology of the American landscape is studied across rural, urban, and suburban contexts, focusing on transformations in industrial and post-industrial spaces. These landscapes reflect cultural norms, societal structures, and political ideologies, revealing how the environment influences and is influenced by society.

Through case studies, students engage with contemporary landscape design principles, uncovering the design opportunities embedded in historical, cultural, and scientific contexts. The course also introduces contemporary thinkers and grassroots movements advocating for landscape equity and decolonization, exploring the role of designers, writers, scientists, artists, and architects in shaping the American landscape.

Landscape and American Culture examines the built-environment and spaces for their role in shaping social life, culture, and subcultures. By studying landscape as material culture, students will understand how spaces influence ordinary Americans' lives. The influence of pop culture is also considered, particularly in how the commodification of land has shaped leisure, tourism, and concepts of 'free time.' These observations and analyses allow students to deconstruct the complex strata of American identity in the built-environment.



Sim Chi Yin, Mountain range surrounding the Nevada Test Site, November 2017.

ARCH 536: Landscape and American Culture

New Jersey Institute of Technology, Fall 2025, Monday, 6p-8:50p History/Theory Elective | Prerequisites: ARCH 324: Landscape and Urbanism Faculty: James Coleman | james.d.coleman@njit.edu

Landscape and American Culture explores the numerous variables from which landscape conceptually, aesthetically, and representationally has emerged within the American cultural industry, and how that industry has continued to drive the perceptions of our environment to influence design decisions today. Geological vastness, cultural and biological diversity, and agricultural evolution have provided designers a multitude of challenges and opportunities of which to account. Rather than narrowing the definition of these factors into the discipline of landscape architecture, this course considers design as an interrogation of the landscape and our utilization of it, and therefore the entirety of decisions within its use and ideation are considered the purview of designers. As such, the numerous dialectical delineations between landscape and cityscape, wilderness and civility, give way to a congregation of environmental relations whose qualities intersect with all aspects of our design processes and built environments.

Through lectures and discussions the course will interrogate contemporary principles and practices in landscape design through a series of case studies whose historical, cultural, and scientific stratifications will be forensically studied and cataloged to make evident their inherent design opportunities. The course will introduce students to contemporary thinkers and grassroot movements interested in landscape equity and sustainability. The role of designers, writers, scientists, artists and architects, and their respective ideations and interventions, will guide students to understand the cultural imagination of the American landscape.

ARCH541 MATERIAL SYSTEMS IN DESIGN

Class times:Mondays/Thursdays 8:30am -9:50am / In-personInstructor:Saba ArdeshiriCredit:3 creditsPrerequisite:Arch 396

This seminar examines the role of materials in contemporary architectural design. The course explores material systems through case studies, experimentation, and conceptual modeling, encouraging students to engage with both traditional and emerging approaches. Through research and hands-on inquiry, students will investigate material behavior, fabrication processes, and their broader implications in design. The course provides a foundation for rethinking materiality as an active and transformative element within architectural practice.

Arch 557 – PROBLEMS IN MODERN HOUSING

CLASS TIME: Mondays, 6:00PM to 8:50PM

INSTRUCTOR: Viktoria Diskina

TYPE OF COURSE: HISTORY THEORY ELECTIVE



Attempts to provide decent, affordable and well-designed housing for broad segments of society are examined. Dwelling is examined through analysis of proto-typical design solutions in urban environments. This course will explore the cause-and-effect relationship of modern housing development with those various ever-changing parameters, including cultural and socio-economic processes in the world. To do that we will, first, look at how the housing discourse evolved from its origins to present time and, then, discuss emerging societal trends together with the range of possible design, and construction technology responses.

Ever since the end of the industrial revolution, when "housing" became society's major pain point, we find ourselves in a state of never-ending housing crisis. There seems to be a continuous struggle to provide enough homes for the working class, no matter the country, political system, or scale of proposed developments. Two world wars and several pandemics, including COVID, pushed the problem to the limit, while adding to the list of open questions.

The society is and has been searching for solutions, using every available strategy, from new forms of financing to dramatically reducing the apartment size. We do not seem to be any closer to moving the needle though. The fact that we cannot agree on underlying values also does not help. Is housing a right? Do we pay for others to have a home? Renting or owning? Wood or concrete? A townhouse or a tower? At the same time UN Habitat estimates that by 2030 "three billion people, about 40 percent of the world's population, will need access to adequate housing. This translates into a demand for 96,000 new affordable and accessible housing units every day.

The need for fresh unconventional ideas is urgent and architects find themselves at the front lines of that challenge. We are the only discipline uniquely qualified to find an answer in the synthesis of countless constraints and considerations. We balance demands of changing lifestyles and family structures with limited budgets, energy shortages with available technologies, fire safety with comfort. And we create beautiful, stimulating spaces at the end of the process.

ARCH 572 – MAPPING URBANISM

CLASS TIME: In-Person, Thursday 6:00pm-8:50pm

INSTRUCTOR: Karen J. Wenschhof, RA, AIA, CID, CFM kw86@njit.edu

TYPE OF COURSE: History Theory Elective



Source:https://urbandesignlab.in/activity-mapping-in-urban-design/

Prerequisites: ARCH 211.

This seminar provides the critical tools necessary to examine the city as both a representation and a reality in flux. Through an interdisciplinary framework, students study urban history, theory, visual thinking and information design. Parallel to learning about global cities, their urban challenges, and transformative design strategies, students learn to employ a diverse set of representational techniques to create inventive mappings.

ARCH 576

Architecture of Utopia

Fall 2025 | history & theory seminar Thursday 6:00 – 8:50 PM Prof. Matei Denes



Oblique City - Architecture Principe 1966

Utopias allow us to explore beyond the everyday and ask big questions about who we are and what we want. They are designed as spatial representations of society. Architecture plays a key role in both the development and understanding of utopias. In this class we will be looking at how architecture can produce cultural, political, and economic meaning.

The class will explore how utopian projects in architecture manifest four main ideas:

- 1. Architecture as Problem Solving
- 2. Architecture as Political Machine
- 3. Architecture as Social Experiment
- 4. Architecture as Formal Metaphor

Classes will be structured as discussions with presentations by both the instructor and students. Readings and films will supplement the discussions. Students will be expected to show their understanding of the material through participation in class discussions, presentations, writing, and design.

Arch 583 History/Theory - ST: Women in Architecture: Where Are They?

CLASS TIME: Thursdays, 6:00PM to 8:50PM

INSTRUCTOR: Hadass Rozental

TYPE OF COURSE: History Theory Elective



Photo: Robert Venturi © Venturi, Scott Brown and Associates, Inc., Philadelphia.

"It is very easy to look around, find the man, and say he is the genius" - Denise Scott Brown

Scholar Despina Stratigakos asks in her book "Where Are the Women Architects"? Reflecting on this question, the course explores the intersections of feminism and gender in architectural design and practice. Through a critical lens, we will examine the work of pioneering women architects and scholars, such as Denise Scott Brown, alongside architect duos like The Smithsons and Lilly Reich & Mies van der Rohe. With the overarching question of the course in mind, we will engage with biographies and monographs to enrich and expand the existing architectural bibliography.

The course will be delivered as a seminar, oraganized primarily around presentations, readings, and discussions.

Arch 583 History/Theory – ST: Context, Culture, and the Evolution of Architectural Language in India since 1950

CLASS TIME: Mondays and Thursdays 11.30 am - 12.50 pm INSTRUCTOR: Mansi Shah

TYPE OF COURSE: HISTORY THEORY ELECTIVE



This elective explores the evolution of architectural language in India from 1950 onward, tracing how architects have responded to cultural traditions, climatic conditions, and socio-political contexts in post-independence India. Using B.V. Doshi's work as a central case study alongside other key figures such as Charles Correa, Achyut Kanvinde, Laurie Baker, and Raj Rewal, the course examines how Indian architects developed a distinct design vocabulary that negotiates between modernity and tradition. Through a study of seminal projects, writings, and theoretical frameworks, students will analyze how architects addressed critical themes such as nation-building, identity, and social responsibility in their work. The course will also highlight the role of vernacular practices, material innovation, and participatory design in shaping India's architectural landscape.

Key Themes:

- Post-Independence Modernism
- Cultural Identity and Symbolism
- Material and Environmental Responsiveness
- Pedagogy and Practice
- Decolonizing Design Curricula

Learning Outcomes:

By the end of the course, the students will understand the evolution of architectural language in post-independence India through key projects and theoretical debates. Develop critical insights into how architects responded to social change, urbanization, and housing challenges. Engage in speculative design exercises that explore how cultural narratives, and environmental strategies can inform contemporary design practice.

ARCH 583 - Architecture and Counterculture

New Jersey Institute of Technology - FALL 2025

CLASS TIME: R 6:00PM to 8:50 PM

INSTRUCTOR: Aurora Bonomi

EMAIL: mb2346@njit.edu

TYPE OF COURSE: Architectural Elective



A scene from Beautiful Losers (2008) documentary by Aaron Rose and Joshua Leonard.

This course examines the dynamic relationship between architecture and underground counterculture, focusing on how architectural spaces and forms have both influenced and been shaped by movements that challenge mainstream cultural norms, born during periods of political and social unrest.

Through an interdisciplinary approach, students will explore case studies from the 20th and 21st centuries, analyzing how architects and designers have responded to issues such as social justice, environmentalism, and anti-establishment ideals. By considering examples of art, music, photography, fashion and design, the course encourages students to think critically about how art and architecture not only reflects societal values but also acts as a tool for cultural and political expression.

Arch 583 – Cartographic Imagination - Mapping Realms of the Urban and Rural

CLASS TIME: Fall 2025

INSTRUCTOR: Carlos Blanco

TYPE OF COURSE: Technology/Urbanism/Theory



"Map devices such as frame, scale, orientation, projection, indexing, and naming reveal artificial geographies that remain unavailable to human eyes... the surface of the map functions like an operating table, a staging ground or a theatre of operations upon which the mapper collects, combines, connects, marks, masks, relates and generally explores."

James Corner, The Agency of Mapping)

Architecture of Nature, Nature of Architecture, Diana Agrest

This course will investigate urban and rural cities, regions, and territories through the analytical methods of cartographic drawings, distillation, and synthesis. The course will require students to use their understanding of mapping to conclude urban and rural complexities and networks, finding linkages between the existing and imaginary. This course will be both an introduction to GIS mapping and a robust representational course that will guide each student to newly acquired representational techniques. The course material, assignments, and drawings will be guided through the inter-scalar abilities of maps and drawings - positioning the student to view each surface, intersecting line, natural landmark, geographical anomaly, and imaginary element to be viewed at various levels of depth and distance. The students will take inspiration from Charles and Ray Eames's *The Power of Ten* as a basis for them to challenge their eyes to read cities, territories, and spaces at the granular nanoscale to the macroscopic level, with the intention to develop a series of investigative drawings that are both orthographic and axonometric. The course objectives are to teach students will be tasked with selecting a particular region of interest and developing a series of drawings from that. Students will have a pin-up at the end of the course and will be guided through their projects throughout the assignments. A booklet will be created and published. Direct participation is required in the course.

ordering systems; the rigor in disorder

Arch 583 ST fall 25 T 6.00-8:50 pm

maria hurtado de mendoza architect associate professor hcad_njit mhm@njit.edu

image:

"KAIT" pavilion (Kanazawa Institute of Technology Workshop, 2008) by Japanese architect Junya Ishigami. drawing by maria hurtado de mendoza @entresitio

key words:

#architecture #architectural
design #space #ilovebuildings
#order/disorder #process
#reading #drawing #writing
#conceptual strategies #theoretical anxiety #geometryisatool #system thinking #what/
why/how



nomen est numen (to name is to know)

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.

the seminar will explore, analyze and speculate through graphic means about seminal buildings, in search for conclusions that tight together abstract ideas on order with specific disciplinary questions of architecture.

the work will conclude with the writing of a paper that elaborates on the process and elevates the chosen theme to be part of architectural discourse.

why does order matter? how can the discipline of architecture address the contemporary construction of randomness in a rigorous way? what is the distance between the legibility of order and the ambiguity of an order that is not revealed as such? these and similar questions will be the background for a personal journey that will for sure engage all that have the will to build architecture.

ARCH 538 Technology – Sustainable Architecture

CLASS TIME: Wednesday, 6:00pm-8:50pm INSTRUCTOR: <u>Anuradha Kadam</u> TYPE OF COURSE: Technology Elective PREREQUISITES: <u>ARCH 314</u> or <u>INT 222</u>.



Kendeda Building

Hunter's Point South

Buildings in the United States contribute to 35% of the nation's carbon emissions, and this figure does not even include the embodied carbon emissions from building materials, construction, and deconstruction (<u>NREL 2025</u>). People spend about 90% of their time inside buildings (<u>EPA 2024</u>). The burning of fossil fuels for buildings affects both indoor air quality (from gas heating systems and stoves emitting carbon monoxide) and outdoor air quality (air pollution leading to asthma and respiratory illnesses). Furthermore, the past several decades of irresponsible buildings construction and design have contributed to climate change, prompting a need for resilient buildings to protect people from extreme weather events (heatwaves, freezing, flooding, and power outages).

This puts a lot of power in the hands of architects, present and future, as there are now countless pieces of evidence of how building design affects human well-being and the natural environment. This course will include topics such as sustainable site design, sustainable and healthy materials, lifecycle assessment and cost benefit analysis of building systems, energy efficiency, water conservation, daylighting, and indoor environmental quality. The course will explore sustainable building design principles, examples, and certifications.

The goal of this course is to integrate sustainability within the design process, from start to the end, and learn how to use research to support design decisions. The course will include guest lectures from designers and engineers at Arup and interim assignments that feed into a final project that can be applied to current or prior studio work.

ARCH 583: History/Theory -Beyond Compliance: Multi-Sensory Design & Inclusive Architecture

Class Time: Tuesdays, 6:00 pm - 8:50 pm

Instructor: Laney Vela laney.vela@njit.edu

Type of Course:History/Theory Elective



Hazelwood School by Alan Dunlop Architect Limited Glasgow, United Kingdom

Maison à Bordeaux by Rem Koolhaas, OMA 1998, Bordeaux, France

Introduction:

Beyond Compliance: Multi-Sensory Design & Inclusive Architecture explores the intersection of sensory experience and accessibility in architecture. Traditional architectural discourse often prioritizes the visual, but how do other senses—touch, sound, smell, and proprioception—shape spatial perception? And how can we design inclusively for bodies that experience space in diverse ways?

Through critical readings, case studies, and experiential assignments, students will analyze how architecture can enhance or hinder accessibility for neurodivergent individuals, people with disabilities, and diverse user groups. We will also explore multi-sensory design strategies in built environments, from DeafSpace principles to acoustic wayfinding and sensory urbanism.

This seminar pushes accessibility beyond legal compliance into the realm of design innovation. It challenges students to think of accessibility as an opportunity for creativity, rather than a constraint.

Course Objectives:

In this course, students will:

- Expand their understanding of architectural design beyond the visual.
- Examine how different bodies perceive and navigate space through various sensory modalities.
- Investigate existing accessibility frameworks and propose more holistic, human-centered alternatives.
- Apply sensory mapping, material experimentation, and inclusive design strategies.
- Create spatial strategies that enhance experience for all users, not just those with disabilities.

Arch 583 - CRITICAL THEORIES IN ARCHITECTURE

CLASS TIME: Tuesday, 6:00PM to 8:50PM

INSTRUCTOR: Peter Dumbadze, AIA NCARB

TYPE OF COURSE: History/Theory Elective



Ant Farm, "Media Burn", Video Still, 1975, SFMoMA

This seminar is structured around notable readings on architectural history, theory, and criticism to provide students with a sound basis for critical analysis and assessment. It is recommended for students who select history and theory as their area of concentration.

In 1984, the architectural theorist K. Michael Hays wrote the essay, "Critical Architecture: Between Culture and Form", in which he lays the groundwork for what has become known as the Critical Project in Architecture. A synthesization of Marxist historical materialism and the formalist strategies espoused by the academy, the Critical Project sought to create a path in which Architecture could actively engage in historical dialogues while exploring how space could physically manifest. However, in only two decades, a new project spearheaded by Sarah Whiting and Robert Somol emerged that advocated for a projective architecture, only to be followed in the first two decades of the twenty-first century by an architectural theory that has scattered across a diversity of intellectual movements.

This seminar will look at the formation and dissolution of Hays's Critical Project and what trajectories architectural theory may take in a post-2025 world. Through critical analysis of disciplinary and adjacent texts, we will develop a narrative that explores the evolution of architectural theory and what uses it has to the architectural discipline.

ARCH 622 Life Cycle Assessment and Design 3 credits, 3 contact hours.

CLASS TIME: Monday/Wednesday 8:30 AM - 9:50 AM

INSTRUCTOR: John Cays

TYPE OF COURSE: Technology Electiv

Prerequisites: ARCH 396, or INT 364, or ID 364.

Course Overview: This course tracks Life Cycle concepts as first applied to inanimate objects and systems by the U.S. military in the mid 20th Century through their development as an important part of the modern global environmental movement. It also provides opportunities for architecture and design students to integrate data driven design decisions through methodologies and tools that translate formal Life Cycle Assessment into their own design workflows.

Course Syllabus

Professor: Jun Schick Lee junschick.lee@njit.edu – 617 671 5648 office hours: by appointment via Webex

Design & Optimization of the Building Enclosure ARCH 646 - Fall 2025



TYPE OF COURSE

Graduate elective, 3 credits, meets 3 hours, once a week, seminar format, 15 students expected.

COURSE OVERVIEW

Exterior walls provide protection and comfort to the occupants from the outside environment. Also, there is a more demanding building envelope energy requirement from each jurisdiction. Optimization of building envelopes is inevitable direction to meet today's Cabon Neutral/ Net Zero trend. Prior to designing and optimizing the façade system, it would be necessary to understand the whole spectrum of enclosure system regarding its design, engineering, performance criteria, fabrication, and installation. Each applicable industrial standard and building code regulation/ reference guideline are important basis to navigate designing thermally efficient façade system.

The course includes introduction of basic concepts of typical exterior wall types such as curtainwall, fenestration, and rainscreen, but also provide thermal modeling software training such as Window, Optics, and Therm. Once students establish exterior wall principles and familiarize with thermal software, each student is expected to select their own research topic and perform thermal modeling analysis to optimize the building enclosure.

HCAD LEARNING OBJECTIVES

- Establish basic concept of typical exterior wall types.
- Learn thermal modeling software.
- Produce thermal modeling for building enclosure optimization with various alternatives options.

NAAB LEARNING OBJECTIVES

The National Architectural Accrediting Board accredits NJIT's architecture program. The NAAB has Shared Values of the Discipline and the Profession that must be covered by any architectural curriculum to attain their approval. This course satisfies the following shared values:

- Environmental Stewardship and Professional Responsibility: Architects are responsible for the impact of their work on the natural world and on public health, safety, and welfare. As professionals and designers of the built environment, we embrace these responsibilities and act ethically to accomplish them.
- **Design:** Architects design better, safer, more equitable, resilient, and sustainable built environments. Design thinking and integrated design solutions are hallmarks of architecture education, the discipline, and the profession.

COURSE REQUIREMENTS

- Engagement: includes 1) attendance, 2) posting of questions in Discussions on Canvas, and 3) class participation. (20%)
- 15-minute Initial Presentation and Material of Enclosure Wall System (30%)
- 15-minute Final Presentation and Final Submission Material (50%)

ID 203. Past, Present and Future of Design

This intensive survey course explores pivotal shifts in design thinking from ancient cultures through the Industrial Revolution to the present day—and looks ahead to what design may become. Focusing on design as a core human activity, students will examine how social, cultural, and technological forces have shaped methods, styles, and meanings over time. Through case studies of key cultures and designers, the course offers insight into the evolving role of design in human ecology, preparing students to engage thoughtfully with both history and future possibilities.

ID 216. Modeling and Prototyping

This course introduces essential drafting and prototyping skills used to communicate and fabricate design ideas. Students will learn orthographic and isometric drawing, line weights, dimensioning, and technical specifications, building a foundation for clear visual communication. In the model shop, students will apply these skills by working with tools, materials, and fabrication techniques to create full-scale appearance and working prototypes. Through hands-on experience, students gain practical knowledge of how ideas move from page to physical form.

ID 310: Ethnographic and Marketing Research

This course introduces research methodologies that provide objective insight into user needs, behaviors, and motivations. Through interviews, surveys, observations, and interventions, students will gather and document data to inform design decisions. The research will support the development of new products, enhance existing ones, or uncover untapped market opportunities. Emphasis is placed on translating real-world findings into meaningful and strategic design outcomes.

ID 340: Materials and Processes

This course introduces students to the core materials and manufacturing processes behind both short-run and mass-produced objects. Through a mix of lectures, field trips, and hands-on design exercises, students will explore traditional techniques alongside emerging, state-of-the-art methods. Emphasis is placed on understanding how material choices and production processes influence design outcomes, scalability, and innovation.

ID 410: Professional Practice and Ethics

This course prepares students for the realities of professional design practice by covering legal, ethical, and business responsibilities. Topics include contracts, liability, intellectual property, patents, and royalties, as well as roles within owner-operated and corporate design offices. Students will also explore how to work with consultants and establish their own practice. Emphasis is placed on ethical decision-making in design, research, and marketing—examined through social, political, and cultural lenses—to ensure responsible, informed professional conduct.

AD 490: Digital Clowns: Al-Driven Motion Capture

Despite technological advances, creating realistic digital humans that engage our empathy remains elusive. The Uncanny Valley – the eerie discomfort we feel when a digital character looks almost, but not quite, human – causes rifts in immersion in the visual narrative. This course aims to bridge the empathetic divide in animation, exploring an AI-driven tool that automates markerless motion capture, lighting, and compositing of computer-generated characters. It will define how we perceive authenticity in the movement of living beings and establish best practices to enhance immersion in digital storytelling. A technologically driven analysis of the physical performances of influential clowns from diverse cultures will provide a foundation for techniques and solutions to animate authentic and empathetic movement. Students should be versed in 3D modeling, texturing, rigging, and animation techniques.

AD 490: AI Storycraft: Visual Narratives with Text-to-Video Magic

Text-to-video AI-driven apps are changing the landscape of digital visual storytelling and design. These powerful tools offer groundbreaking potential, but their limitations must be carefully contextualized. As designers integrate these innovations into their creative arsenal, critical questions about narrative cohesion and character/protagonist intent must be explored. Students will use text-to-video platforms to generate both creative and informative video content, including but not limited to designing an advertisement, a music video, a movie teaser trailer, and a stylized animation. Embedding AI in the learning experience empowers students to explore complex concepts through multimedia storytelling while developing critical design skills for future careers. This curriculum will emphasize visual narrative skills including but not limited to camera framing and angles, design principles such as hierarchy, color, and contrast, as well as the importance of composition, movement, and pacing.

AD 490: Designing Proposals that Win: RFP Mastery for Architects & Interior Designers

In today's competitive design landscape, the ability to win work is as critical as the ability to design. This course demystifies the Request for Proposal (RFP) process and empowers students to craft strategic, visually compelling, and persuasive architectural proposals that stand out. Through hands-on workshops, real-world case studies, and feedback from industry professionals, students will learn to translate their design thinking into narrative clarity, visual logic, and strategic communication. From understanding client expectations to mastering layout, tone, and compliance, this course equips emerging designers with the skills needed to lead winning submissions—and launch successful careers.

AD 490: The Design of Branding

This interdisciplinary elective introduces students to the fundamentals of branding as a strategic and creative practice. Through case studies, design exercises, and critical discussions, students will explore how visual identity, language, environment, and user experience come together to shape a brand. Emphasis is placed on understanding the role of storytelling, consistency, and context in building memorable and meaningful brands—whether for spaces, products, organizations, or experiences. Ideal for students interested in how design communicates values and influences perception across industries.