ARCH 535: History of Architectural Ideas

Few discoveries are more irritating than those which expose the pedigree of ideas.

Lord Acton

Simply put, all theory is a form of practice just as all practice requires some form of theory.

Mark Linder

NJIT Spring 2025: **Academy**

Instructor: Joseph M. Berlinghieri, NCARB, AIA
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Monday 6:00 – 9:00 PM
New Jersey Institute of Technology
Hillier College of Architecture + Design

Course Syllabus

Type of Course:	Elective
	Face-to-Face, Seminar Format
	3 credits, 3 contact hours per week, meets once a week
Prerequisite:	ARCH 211: History of Architecture II

Course Description:

Historically, the separation of theory and practice has been stark, relegating architectural ideas predominantly to the academy. All too frequently, the rare intersection of theory and practice is not generative but limited to retroactive manifestos or, worse, post-rationalization. Increasingly, this model has proven inadequate. The rising complexity of the contemporary built environment has created an increasing need for the re-integration of architectural ideas as a generative element to produce successful design.

This course discusses seminal architectural ideas in the western world from Vitruvius to the present day. Students will read texts written by leading architectural theorists and analyze them in detail. This seminar will provide a framework for students to examine influential architectural texts with an emphasis on their application to the analysis, understanding, and execution of building design. Through weekly readings and in-depth discussion students will collaborate to develop methodologies of analysis and application through various thought structures in the context of design. Students will utilize physical, graphical, and textual methodologies to analyze and critique notable works of architecture. At the end of the term, these analyses will culminate in a final document shared with the class as a resource for future work.

Learning Objectives:

The course seeks to both expose students to architectural thought and analyze it in a topical and historical context while allowing an opportunity to discover and formulate methodologies to utilize theory as a generative element for future design endeavors. This course will utilize a topical format to explore ideological approaches to design including, but not limited to context, form, space, materiality, and representation. Collaborative textual analysis will drive individual architectural analysis resulting in in-depth explorations of both notable architectural works and each student's personal design process. As a result, students will develop personalized processes for the utilization of architectural theory as a tool for analyzing, understanding, and executing design.

NAAB Shared Values:

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:

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.

Equity, Diversity, and Inclusion: Architects commit to equity and inclusion in the environments we design, the policies we adopt, the words we speak, the actions we take, and the respectful learning, teaching, and working environments we create. Architects seek fairness, diversity, and social justice in the profession and in society and support a range of pathways for students seeking access to an architecture education.

Knowledge and Innovation: Architects create and disseminate knowledge focused on design and the built environment in response to ever-changing conditions. New knowledge advances architecture as a cultural force, drives innovation, and prompts the continuous improvement of the discipline.

Leadership, Collaboration, and Community Engagement: Architects practice design as a collaborative, inclusive, creative, and empathetic enterprise with other disciplines, the communities we serve, and the clients for whom we work.

Lifelong Learning: Architects value educational breadth and depth, including a thorough understanding of the discipline's body of knowledge, histories and theories, and architecture's role in cultural, social, environmental, economic, and built contexts. The practice of architecture demands lifelong learning, which is a shared responsibility between academic and practice settings.

Learning and Teaching Culture Policy:

In addition to the overarching values and ethics of the university, the New Jersey School of Architecture (NJSoA) is dedicated to optimism, diversity and solidarity, professional conduct, constructive evaluation and instruction, collaborative community, health and well being, 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:
https://design.njit.edu/learning-and-teaching-culture-policy

Format:

Seminar classes utilize a framework of discussion with colleagues. Perspectives and observations shall not be dismissed out of hand, but must be debated and examined through collaborative research. Course readings are intended to be interrogated and tested thoroughly, not necessarily as predetermined answers, but as a context and origin for questions to be answered through future design endeavors. There shall be no wrong questions nor right answers. Course requirements will be comprised of discussion participation; discussion leadership; weekly architectural analyses; and a cumulative, comprehensive case study that includes a generative design proposal. Investigations are meant to contribute to further development of architectural thinking and continued development of students' architectural processes in the future. Successful course completion shall depend on the individual student's ability to gather, appraise and employ applicable research while developing their ability to read, write, and speak critically regarding key elements of the profession.

Evaluation and Grading Criteria: (subject to change during semester)

NJIT Undergraduate grading scale:
A 4.0 Superior
B+ 3.5 Excellent
B 3.0 Very Good
C+ 2.5 Good

C 2.0 Acceptable
D 1.0 Minimum
F 0.0 Inadequate

Incompletes are only granted in the event of a documented medical or family emergency, and must be approved by the instructor and administration.
NJIT has a policy of issuing mid-term warnings for students who are not performing at a satisfactory level. Any student issued a warning will be required to have a conference with the instructor to evaluate satisfactory completion of the work for the remainder of the semester. At any point during the semester students can arrange to meet with the instructor to inquire how their performance of the assignments is progressing and how they may improve. Final grades may be discussed in person at the end of the semester by student or instructor request.

Office Hours:

Instructor is available in person, on campus, by appointment, Thursday from 9-12 AM or remotely by appointment Wednesday & Friday from 9AM- 5PM.

Academic Integrity:

Academic integrity and honesty are of paramount importance. Cheating and plagiarism will not be tolerated. The NJIT Honor Code will be upheld, and any violations will be brought to the immediate attention of the Dean of Students. All students are responsible for upholding the integrity of NJIT by reporting any violation of academic integrity to the Office of the Dean of Students. The identity of the student filing the report will remain anonymous. All students are expected to adhere to:
The University Code on Academic Integrity: https://www.njit.edu/dos/academic-integrity
The Code of Student Conduct: https://www.njit.edu/dos/policies/conductcode/index.php
HCAD librarian Maya Gervits has assembled excellent resources for a students use on using images, citing, and plagiarism: https://researchguides.njit.edu/c.php?g=671665&p=4727920

Use of Generative Artificial Intelligence:

Student use of artificial intelligence (AI) is permitted in this course for certain activities. It is not permitted to be used for the enhancement of prior design work being represented in the required Digital Media Presences as it would be a dishonest representation of that work. However, AI my be used to generate Digital Media content, if and when it benefits Digital Media Presence in a way that can not be otherwise replicated and enhances the learning experience of the student. If and when students use AI in this course, it must be cleared with the instructor prior to the assignment submission. AI must be cited as is shown within the NJIT Library AI citation page for AI. If you have any further questions or concerns about AI technology use in this class, please reach out to your instructor.

Class Attendance Policy:

Class will meet once a week: Monday, 6:00 – 9:00 PM (subject to change)
ON TIME attendance is required at all class meetings.
Failure to be on time may result in students not being permitted to present their weekly assignment and receiving a reduced or failing grade on the assignment. Habitual lateness and/or absences WILL result in such penalties. Unexcused absences can result in the lowering of final grades or failure.
Three or more unexcused absences will require a meeting with the instructor.

Assignments:

Each assignment will constitute a percentage of the overall grade as follows:

Readings and Discussion Participation: 20% of final grade
Will be issued as 2 grades: 10% at Midterm, 10% at End of Term

Team Class Discussion Leadership(2): 20% of final grade
Student Teams will lead class discussion twice (2x) during the term
Students will form teams of three (3) students
Each team will lead the class discussion twice and receive 2 grades: 10% each time

(12) Weekly Case Study Topical Analyses: 25% of final grade

Comprehensive Case Study Term Paper: 30% of final grade
Requirements:
Approximately 2,500-3,000 words of original academic thought/text.
Accompanying/Supporting drawings & diagrams
Appropriate annotations, footnotes and bibliography to support the text, images, and diagrams.
Total page area of images and diagrams should be approximately equivalent to page area of text.

Generative Design Proposal: 5% of final grade
Requirements:
1-2 pages of original graphics and original text containing original architectural thought.
Proposal should reflect 1 or more of the student's personal theories about the design process.
Proposal should not reference the case study.

Students should upload deliverables to the appropriate Assignments folders on Canvas*, Kepler*, and a shared google folder in pdf format at the page/image size and quality they are created/presented. Additional requirements and instructions will be forthcoming.
Canvas: https://canvas.njit.edu/

**NB: Kepler is connected to Canvas, however, work uploaded to Canvas for grading will not automatically be uploaded to Kepler. Students should access Kepler through Canvas and upload work to the appropriate folder for archiving by HCAD.*

Preliminary Schedule:
(Subject to Change)

25.01.27 Week 1: Introductions & Methods

Course Framework Discussion
Topic & Readings Introductions
Discussion Leadership Pairings & Assignments
Case Study Selections

Suggested Readings:
The Elements of Style
Strunk, Jr., William & White, E. B. *The Elements of Style*. New York: MacMillan 1959, 1972, 1979; Longman, 1999, 2009
Two Hundred and Fifty Things an Architect Should Know
Sorkin, Michael. *Two Hundred and Fifty Things an Architect Should Know* New York: Princeton, 2021

Modern Architecture
Wagner, Otto. Ed. Mallgrave, Harry F. Trans. Hermann, Wolfgang.
Santa Monica, CA: The Getty Center, 1988

Assignments: Initial Case Study Research and Bibliography, Due 25.02.03
Case Study BIM and Base Drawings, Due 25.02.10
It is strongly recommended students start building their case study BIM this week.

25.02.03 Week 2: Representation

Primary Readings:
Translations From Drawing to Building
Evans, Robin. *Translations from Drawing to Building and Other Essays*
London: Architectural Association. 1997
Mapping the Unmappable - On Notation
Allen, Stan. *Practice: Architecture Technique + Representation*
New York: Routledge, 2009

Suggested Readings:
Le Carnet, Villard de Honnecourt
Sammlung Architektonischer Entwurfe, Karl Friedrich Schinkel
Studies and Executed Buildings, Frank Lloyd Wright
God's Own Language: Architectural Drawing in the Twelfth Century, Karl Kinsella
Architectural Representation and the Perspective Hinge, Alberto Perez Gomez & Louise

Assignment: Case Study BIM and Base Drawings, Due 25.02.10

25.02.10 Week 3: Context

Primary Readings:
From Object to Field: Field Conditions in Architecture and Urbanism
Allen, Stan. *Practice: Architecture Technique + Representation*
New York: Routledge, 2009
The Lives of a Block
Koolhaas, Rem. *Delirious New York*. New York: Monacelli, 1978, 1994.

Suggested Readings:
The Death and Life of Great American Cities, Jane Jacobs
Collage City, Colin Rowe & Fred Koettner
Urban Diaries, Walter Hood

Assignment: Case Study Contextual Analysis, Due 25.02.17

25.02.17 Week 4: Site

Primary Readings:
Book I, Preface – Chap III & Book VI, Introduction – Chap V
Vitruvius. *De Architectura*. Trans. Morgan, Morris Hicky. Boston: Harvard
University Press & New York: Dover, 30-20 CE, 1914, 1960
La Tourette
Rowe, Colin. *The Mathematics of the Ideal Villa and Other Essays*
Boston: MIT Press, 1987

Suggested Readings:
Discovering the Vernacular Landscape, JB Jackson
Landscapes, JB Jackson
Landscape Architectural Research: Inquiry, Strategy, Design, M. E. Deming & Simon Swaffield

Assignment: Case Study Site Analysis, Due 25.02.24

25.02.24 Week 5: Function

Primary Readings:
Chats V – XIII
Sullivan, Louis. *Kindergarten Chats and Other Essays*
New York: Dover, 1979, 2014
Type and Typology in Architectural Discourse
Güney, Yasemin Ince. BAÜ FBE Dergisi, vol. 9, issue 1, pp 3-18, July 2007

Suggested Readings:
Towards a New Architecture, Le Corbusier
Learning from Las Vegas, Robert Venturi, Denise Scott Brown, & Steven Izenour
L'architettura della città, Aldo Rossi

Assignment: Case Study Functional Analysis, Due 25.03.03

25.03.03 Week 6: Form

Primary Readings:
The Lesson of Rome
Le Corbusier. *Towards a New Architecture*. London: Rodker, 1931,
New York: Dover, 1986
Chapters 1-6
Venturi, Robert. *Complexity and Contradiction in Architecture*.
New York: MOMA, 1966, 1977
Blob Tectonics, or Why Tectonics is Square and Topology is Groovy
Lynn, Gregg. *Folds, Bodies & Blobs: Collected Essays*
Bibliothèque Royale de Belgique, 1998

Suggested Readings:
Allegory of the Cave, The Republic, Plato
Learning from Las Vegas, Robert Venturi, Denise Scott Brown, & Steven Izenour
The Formal Basis of Modern Architecture, Peter Eisenman

Assignment: Case Study Formal Analysis, Due 25.03.10

25.03.10 Week 7: Regulation

Primary Readings:
The Changing Concept of Proportion
Wittkower, Rudolf. *Idea and Image: Studies in the Italian Renaissance*
New York: Thames & Hudson, 1978
Regulating Lines
Le Corbusier. *Towards a New Architecture*. London: Rodker, 1931,
New York: Dover, 1986

Suggested Readings:
I Quattro Libri Dell'Architettura, Andrea Palladio
The Mathematics of the Ideal Villa, Colin Rowe
Lauretta Vinciarelli: Homogeneous and Non-Homogeneous Grids, Rebecca Siefert

Assignment: Case Study Regulation Analysis, Due 25.03.24

**25.03.16-22 Spring Break*

25.03.24 Week 8: Tectonics

Primary Readings:
Postscriptum: The Tectonic Trajectory, 1903-1994
Frampton, Kenneth. *Studies in Tectonic Culture: The Poetics of Construction in Nineteenth and Twentieth Century Architecture*. Boston, MIT, 1995.
Multiplicitous and In-Organic Bodies
Lynn, Gregg. *Folds, Bodies & Blobs: Collected Essays*
Bibliothèque Royale de Belgique, 1998

Suggested Readings:
The Architectural Theory of Viollet-le-Duc: Readings and Commentaries, Ed. M. Fil. Hearn
Towards a New Architecture, Le Corbusier
Theory and Design in the First Machine Age, Reyner Banham

Assignment: Case Study Tectonic Analysis:, Due 25.03.31

25.03.31 Week 9: Space

Primary Readings:
Anything But Literal: Sigfried Giedion and the Reception of Cubism in Germany
Mertins, Detlef. *Architecture and Cubism*. Eds. Blau, Eve & Troy, Nancy J. Cambridge: MIT. 1997, 2002
Spaces and Events
Tschumi, Bernard. *Architecture and Disjunction*. Boston: MIT Press. 1996

Suggested Readings:
Space, Time and Architecture, Sigfried Giedeon
Questions of Space, Bernard Tschumi
Frank Lloyd Wright's Diagonal Planning Revisited, Neil Levine

Assignment: Case Study Spatial Analysis, Due 25.04.07

25.04.07* Week 10: Movement

Primary Readings:
Figures, Doors and Passages
Evans, Robin. *Translations from Drawing to Building and Other Essays*. London: Architectural Association. 1997
Structures and Sequences of Spaces
Moretti, Luigi. Luigi Moretti: Works and Writings. Eds. Bucci. Frederico & Mulazzani, Marco, Trans. DeConciliis. New York: Princeton, 2002
Montage and Architecture
Ejzenštejn, Sergei. Assemblage, no. 10, pp 110-131, 1937-40, 1989

Suggested Readings:
Space, Time and Architecture, Sigfried Gideon
Frank Lloyd Wright's Diagonal Planning Revisited, Neil Levine
Art, Architecture, and the Moving Viewer, c. 300-1500 CE,
Gillian B. Elll iott & Anne Heath, Eds.

Assignment: Case Study Motility Analysis, Due 25.04.14

**NB: 25.04.07 is the last day students may withdraw from class.*

25.04.14 Week 11: Materiality

Primary Readings:
Transparency: Literal and Phenomenal...Part II
Rowe, Colin & Slutsky, Robert. *Transparency: Literal and Phenomenal II*
Perspecta, vol. 13/14, 1971, 287-301
Immaterial/Ultramaterial: Architecture, Design, and Materials
Mori, Toshiko. *Immaterial/Ultramaterial: Architecture, Design, and Materials*.
New York: George Braziller. 2002

Suggested Readings:
The Lamp of Truth, John Ruskin
Transparency: Literal and Phenomenal I, Colin Rowe, & Robert Slutsky
Delight in Architecture (Series), Lisa Heschong

Assignment: Case Study Material Analysis, Due 25.04.21

25.04.21 Week 12: Detail

Primary Readings:
The Tell-the-Tale Detail
Frascari, Marco. *Via 7: The Building of Architecture,*
Journal of the Graduate School of Fine Arts, University of Pennsylvania
Eds. Behrens, Paula & Fisher, Anthony. Cambridge, MA: MIT Press, 1984
What is the Just Subordination, in Architectural Design, of Details to Mass?
Ornament in Architecture
Sullivan, Louis. *Kindergarten Chats and Other Essays*
New York: Dover, 1979, 2014

Suggested Readings:
Carlo Scarpa and the Adoration of the Joint, Kenneth Frampton
How Big is Big – Does Scale Matter?
A Reflection on Scale in Architeture and Drawings, Frederica Goffi & Devon Moar
Ornament and Crime, Adolf Loos

Assignment: Case Study Detailing Analysis, Due 25.04.28

25.04.28 Week 13: Experience

Primary Readings:

Basic Observations

Rasmussen, Steen Eiler. *Experiencing Architecture*. Boston: MIT, 1959, 1962

The Place of Man & The Geometry of Feeling

Pallasmaa, Juhani. *Encounters: Architectural Essays*. Ed. MacKeith, Peter. Helsinki: Rakennustieto Oy, 2005

Suggested Readings:

Water and Architecture, Charles Moore
The Eyes of the Skin, Juhani Pallasmaa
Building Time: Architecture, Event, and Experience, David Leatherbarrow

Assignment: Draft Conclusion & Finalized Bibliography for Case Study, Due 25.05.05

25.05.05 Week 14: Theory

Primary Readings:

Does Beauty Have a Form & The Magic of the Real

Zumthor, Peter. *Thinking Architecture*. Boston: Birkhäuser, 2006

Architectural Theory is No Discipline

Linder, Mark. *Strategies in Architectural Thinking (Chicago Institute for Architecture and Urbanism Books)*, Eds Burdett, Richard; Kipnis, Jeffrey; & Whiteman, John. Boston: MIT, 1992

Suggested Readings:

De re Aedificatoria, Leon Battista Alberti
The Critique of Judgment, Immanuel Kant
Strategies in Architectural Thinking, Eds Burdett, Kipnis, & Whiteman

Assignments: Comprehensive Case Study Term Paper &
Generative Design Proposal
Due 25.05.12