

MS in Historic Preservation Course Descriptions

College of Architecture and the Built Environment

MPH-621 Issues in Contemporary Preservation, 3 credits

Comprehensive analysis of preservation history, theory, policies, foundational principles and practices as applied to intersecting contemporary issues, namely preservation and sustainable design; adaptive reuse of historic buildings and sites; the role of preservation as a generator of urban regeneration; and preservation planning paradigms. Topics are investigated from both micro and macro perspectives

MHP-602 – Uncovering the Past: Tools, Methods & Strategies, 3 credits

Buildings are silent witnesses to the past. Rediscovering the "stories" of a building's many lives rely upon piecing together archival, physical, and ethnographic evidence. This course affords in-depth study of the techniques, strategies, and resources employed to track down data, using written, graphic, and oral sources. Field trips to key archival repositories provide students with first-hand experience in collecting and interpreting documentary evidence to develop historical narratives.

MHP-626 Building Conservation & Assessment, 3 credits

Through site visits, demonstrations, laboratory exercises, guided research, and discussions, this course provides a comprehensive overview of historic building materials and the ongoing processes of material deterioration, contemporary approaches to treatment, and sustainability concepts of embodied energy and life cycle analysis as these pertain to building conservation. Topics include: investigative techniques for historic structures; diagnosing existing conditions, including non-destructive and laboratory testing methods; and designing appropriate interventions to remedy observed problems. Students will collect, present, critically review findings and formulate recommendations for conservation.

MHP-624 Architectural Forensics and Documentation, 3 credits

Students decode a building's past by deciphering and recording the physical evidence of its evolution. Students learn the fundamentals of professional field techniques used to document and interpret historic structures and places, utilizing sketching and technical drawing via hand drafting and computer modeling. Through field work and labs, students survey, sketch, draft, and annotate comprehensive, technically proficient drawings that represent the salient aspects of historic structures and sites. Procedures and techniques for analyzing historic buildings to determine original appearance and the nature, extent, and chronology of physical change which has occurred over their history are introduced.

MHP 604 - Conservation Historic Build Interiors, 3 credits

Complementing the Building Conservation course this course provides a comprehensive overview of interior materials used in historic building interiors and the ongoing processes of their material deterioration, contemporary approaches to their treatment, and sustainability concepts of embodied energy and life cycle analysis as these pertain to building conservation. Through site visits, demonstrations, laboratory exercises, guided research, and discussions the course explores investigative techniques specific to historic interiors; diagnosis of existing conditions, including non-destructive and laboratory testing methods; and design of appropriate interventions to remedy observed problems. Students will collect, present, critically review findings and formulate recommendations for conservation and treatment of historic interior materials.

ARCH-672 American Architecture, 3 credits

What makes the built environment in America unique? How has American design changed over the generations? What were architects, clients, and critics thinking? Where will American architecture go in the future? Using history, sociology, and the humanities, we will address these types of questions as we examine American

architecture according to themes such as the iconic American home, public buildings, buildings for work and play, and American architectural practice.

ARCH-671 Vernacular Architecture, 3 credits

This course provides the groundwork for the study of architecture built without architects or in some other way, unlike the buildings that comprise the standard architectural canon. Scholars estimate that 95 percent of buildings fall into this category. Depending on faculty expertise, focus will be on national and regional traditions, non-Western traditions or a combination of the two. Examples of vernacular architecture will be examined in the context of their materials, building technology, climate and culture.

MHP-630 Restoration & Rehabilitation of Modernist Buildings, 3 credits

Working in track-based teams, students collaborate to determine historical significance and identify character-defining features of a specific building in the Philadelphia region. Students in the Research/Documentation track take the lead in archival research, documentation and material/condition assessments, utilizing both analog and digital technologies. Both teams evaluate common threats to Modern buildings—thermal shrinkage, freeze-thaw cycling, water infiltration—and establish an appropriate scope for preservation of a Modern structure based on principles consistent with historic preservation standards, the values of the Modern movement, and life cycle assessment (LCA) as a key component of sustainability. Additionally, teams evaluate repair and replacement options for aging glass curtain walls and for the restoration of exposed concrete façades to enable the preservation and reuse of existing facilities, as well as recommend implementing energy upgrades to retrofit the building envelopes that balance preservation with energy conservation. Through the interplay of history, historical significance, and the constraints of a program for reuse, teams develop preservation protocols, while students in the Preservation Design track design solutions for buildings to serve a new purpose while still relaying its unique character.

MHP-622 Adaptive Reuse & Urban Regeneration, 3 credits

This Collaborative Project foregrounds preservation protocols on two intersecting scales—the micro level of adaptive reuse/design of an historic structure and the macro level of its urban environment. Working with a specific site and community-based client in the Philadelphia area, students engage in the process of adaptive reuse of historic buildings and the philosophical motives behind reuse, including the tenets of sustainable design, while also investigating preservation interventions as catalyst for urban regeneration. A primary focus of the project is analysis of preservation strategies against the backdrop of the socio-economic and political contexts that impact a neighborhood's health and development.

Working in track-based teams as well as on individual projects, students document, research, and complete condition assessment of the structure. Students in the Research/Documentation track provide a written statement of the philosophical approach and protocols for reuse; students in the Preservation Design track develop a concept for adaptive reuse and create a final spatial solution. In consultation with area stakeholders and faculty, students also document, research and analyze the selected neighborhood, identifying problems and potentials to propose a comprehensive preservation plan.

MHP-623 Preservation Economics: Urban Revitalization, Adaptive Reuse & Historic Neighborhoods, 3 credits

Course addresses a critical issue facing the contemporary city, namely how to creatively invigorate urban communities—architecturally, environmentally and fiscally. By assessing the macro and microeconomics of neighborhoods, students evaluate the social, political and financial impact of sustainable planning strategies, including Smart Growth, Brownfield and Infill redevelopment, Transit Oriented Development (TOD), New Urbanism "live, work, play," Mixed-use environments, and the Adaptive Reuse of existing buildings. Student teams investigate "real world" projects, using Philadelphia as a living laboratory. The course affords students the opportunity to visit and dissect actual development sites and measure sustainable interventions as a springboard to urban revitalization.

MHP-620 Thesis Preparation, 3 credits

The first in a two-term sequence, this seminar guides students in the formulation of a research question tailored to the individual's professional goals whose original analysis and proposed solution contributes to the discourse in the field. Avenues of inquiry within the discipline are wide-ranging, encompassing either research-based or design-driven topics, as determined by the student's track. Working with both faculty and professional advisors, each student investigates current debates relative to the topic, significant case studies and core literature, in addition to topic-specific research strategies. Through the thesis project, students demonstrate overall competency in principles, theory, practices and methodologies of the Historic Preservation, accomplishment in a chosen area of specialization, as well as the acumen to perform independent research.

MHP-605 Thesis, 4 credits

The second in a two-term sequence, this course is a continuation and completion of the thesis project. Final deliverables include original research, submitted in written and graphic formats, as determined by the specific topic that demonstrates the analytical capacities and creative skills expected of a professional preservationist. In a series of formal presentations, an advisory committee of faculty members and area preservationists critique the thesis, providing valuable feedback and suggestions throughout the semester.

GEOD-610 Introduction to Geographic Information Systems (GIS), 3 credits

This course is an introductory course for Geographic Information Systems (GIS) and is a prerequisite for those in the MS in GeoDesign Program that do not have prior GIS training. GIS is a computer-based tool that uses spatial (geographic) data to analyze and solve real-world problems. Specific GIS methods and topics covered include cartography, demographics, site selection, transportation studies, land use scenarios, and environmental applications. This is a foundation course for the MS in Geodesign Program.

SDN-601 Principles and Methods of Sustainable Design, 3 credits

Sustainability is a cultural phenomenon that is reshaping the way architects, engineers, designers and planners conceive of the built environment. This lecture/seminar course will explore changes in culture over the years that have led to the formation and adoption of contemporary sustainable design practices, technologies and processes. Current aspects of sustainability will be explored including the impact of the LEED rating system, legislation, environmental law, corporate culture evolution, integrated design process, energy modeling and economic impacts of land development. Students will complete a final paper on future directions in sustainable design at the end of the course.