

# School of Architecture

Website (<http://camd.northeastern.edu/architecture/>)

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Architecture and urban landscape are the context for civic life. In an age of increasingly rapid technological and social change, these fields forge connections between our past and our future. This involves critical thinking about many complex contemporary issues, such as the relationship of public and private life, the interaction between formal and political ideas in cities, and the role of technology in the design, construction, and management of contemporary spaces. Because the process of design involves the synthesis of disparate elements, it can also translate into strategies for approaching a wide range of other problems not traditionally understood to be “architecture.” At Northeastern, we connect specific problem solving inherent to architectural and landscape architectural understanding with the larger context of contemporary cities.

The curriculum teaches students to conceptualize, synthesize, and represent complex architectural, urban, and environmental issues. The program focuses on core skills and critical thinking as preparation for both professional practice and advanced study. The curriculum in the design studio encompasses two major themes: First, the studio projects focus on the art of building and environmental performance, and second, the projects explore how designed environments—from buildings to regional infrastructures—affect urban conditions. The art of building includes the study of construction and technology, as well as the cultural messages created by the expression of material, structure, and form. Environmental performance includes imagining how we can live more sustainably by developing innovative design solutions for synthesizing natural and urban conditions. The contemporary city is our laboratory. This urban focus requires that students integrate their own creative impulses with the future of the society of which they will be a part. By building on the practical and technical training afforded by co-op to develop core professional skills, the curriculum focuses on architecture and landscape architecture’s fundamental aesthetic, technological, social, and political aspects.

With the effective synthesis of the art of building and environmental performance with urban issues, Northeastern’s programs in architecture and urban landscape are becoming a leader in identifying opportunities for civic representation, urban development, and neighborhood design. Northeastern’s students are in demand because of their combination of professional competence and fluency in urban architectural and environmental design issues. There are opportunities for interdisciplinary cooperation in urban-oriented research and creative work in areas such as the economics of urban redevelopment; the design and planning of resilient food, water, energy, transit, and industrial systems; urban public policy; and new forms of spatial and visual communication. Additionally, Northeastern’s urban focus is applied globally in the semester abroad.

## External Transfers

Full-time architecture faculty members may evaluate nonstudio courses for conformity with NU requirements using transcripts and course descriptions. Any student seeking studio course credit (drawing, technology, or design) must present a portfolio for review and evaluation.

*Portfolios are optional, though encouraged, for freshman applicants.*

## Academic Progression Standards

A minimum grade-point average (GPA) of 2.500 is required to remain in the majors of architecture or urban landscape. Students below this average will not be allowed to continue in these majors.

A minimum GPA of 2.000 is required to remain in the major of architectural studies. Students below this average will not be allowed to continue in the major.

To graduate, a student must have a 2.500 GPA in architecture or urban landscape.

## Programs

### Bachelor of Science (BS)

- Architecture (<http://catalog.northeastern.edu/undergraduate/arts-media-design/architecture/architecture-bs/>)
- Architectural Studies (<http://catalog.northeastern.edu/undergraduate/arts-media-design/architecture/architectural-studies-bs/>)
- Architecture and English (<http://catalog.northeastern.edu/undergraduate/arts-media-design/architecture/architecture-english-bs/>)
- Architecture and Graphic and Information Design (<http://catalog.northeastern.edu/undergraduate/arts-media-design/architecture/architecture-graphic-information-design-bs/>)
- Civil Engineering and Architectural Studies, BSCE (<http://catalog.northeastern.edu/undergraduate/engineering/civil-environmental/civil-engineering-architectural-studies-bsce/>)
- Environmental Engineering and Landscape Architecture, BSEnVE (<http://catalog.northeastern.edu/undergraduate/engineering/civil-environmental/environmental-engineering-landscape-architecture-bsenve/>)
- Environmental Science and Landscape Architecture (<http://catalog.northeastern.edu/undergraduate/science/marine-environmental/environmental-science-landscape-architecture-bs/>)

### Bachelor of Landscape Architecture (BLA)

- Landscape Architecture (<http://catalog.northeastern.edu/undergraduate/arts-media-design/architecture/landscape-architecture-bla/>)

## Minors

- Architectural and Urban History (<http://catalog.northeastern.edu/undergraduate/arts-media-design/architecture/architectural-history-minor/>)
- Architectural Science and Systems (<http://catalog.northeastern.edu/undergraduate/arts-media-design/architecture/architectural-science-systems-minor/>)

- Urban Landscape Studies (<http://catalog.northeastern.edu/undergraduate/arts-media-design/architecture/urban-landscape-studies-minor/>)

## Courses

### Architecture Courses

Search ARCH, LARC, SUEN Courses using FocusSearch (<http://catalog.northeastern.edu/class-search/?subject=ARCH%2CLARC%2CSUEN/>)

#### **ARCH 1000. Architecture at Northeastern. 1 Hour.**

Introduces students pursuing a major in the School of Architecture to the intellectual and extracurricular opportunities within the school and within the College of Arts, Media and Design. Exposes students to the cultural vibrancy of Boston with the goal of building networks to facilitate the creation of a vibrant and supportive learning community.

#### **ARCH 1110. Fundamental Architectural Representation. 4 Hours.**

Introduces students to architectural representation as a form of documentation, experimentation, and communication through a series of exercises in orthographic, axonometric, and perspectival projection as well as physical and digital modeling. Supports the development of an iterative design methodology by introducing students to the tools of representation. Includes theoretical lectures and workshops in analog and digital media.

#### **ARCH 1120. Fundamental Architectural Design. 6 Hours.**

Introduces architectural design. Examines a number of approaches to spatial organization, massing, and envelope articulation through the analysis of pertinent case studies as well as through a series of fast-paced design exercises. Offers students an opportunity to develop a single design through a series of design studies that deal with issues of site planning, program, user input, and collective negotiation. Requires a portfolio demonstrating the student's representational abilities and iterative design process.

#### **ARCH 1310. Buildings and Cities, A Global History. 4 Hours.**

Introduces students to architecture, as understood through buildings, cities, and landscapes from antiquity to the present. Studies important monuments in the global history of architecture, as well as tools for analyzing the built environment. Considers buildings in relation to their political, social, economic, and cultural context, and as expressions of diversity in human societies and cultural perspectives. Topics include the language of architecture, architectural drawings, the classical orders, the problem of ornament, construction techniques, materials, site, and the role of the patron. Develops students' eye for composition in two and three dimensions, aesthetic discrimination of detail, ability to see buildings as part of a larger social and cultural fabric, and critical judgment in speaking and writing.

#### **ARCH 1311. Recitation for ARCH 1310. 0 Hours.**

Offers a small-group discussion format to cover material in ARCH 1310.

#### **ARCH 1320. Architecture and Global Cultures, 1400 to Present. 4 Hours.**

Offers a chronological history of early modern architecture. Focuses on significant moments in Western culture as well as the architecture and planning of Mughal India, Ottoman Empire, and Japan. Continues major themes from ARCH 1310. Also covers ideal cities and urban planning, the relationship between theory and practice, the Enlightenment, the emergence of the professional architect, trade, colonization, and landscape.

#### **ARCH 1321. Recitation for ARCH 1320. 0 Hours.**

Offers a small-group discussion format to cover material in ARCH 1320.

#### **ARCH 1350. American Architecture. 4 Hours.**

Offers an introduction to the history, theory, and criticism of American architecture and urban planning from the mid-1600s to the 1930s. Explores the social and cultural forces that shape the built environment. Examines European influences as well as uniquely American contributions. Emphasizes the work of Louis Sullivan, H. H. Richardson, and Frank Lloyd Wright.

#### **ARCH 1370. Special Topics in Architectural History. 4 Hours.**

Focuses on various topics in architectural history.

#### **ARCH 1450. Understanding Design. 4 Hours.**

Introduces undergraduates at all levels to the importance of design thinking as a method of inquiry and problem solving. Each class meeting includes a short presentation on a different kind of design problem (houses, furniture, electronics, automobiles, apparel, tools, interiors, cities, typography, information, tall buildings, networks, etc.) and then an interview with a leading practitioner at a roundtable on the stage. Evaluation is based on quizzes and student presentations. Seeks to expose students to the power of design thinking as a tool for multi-variable problem solving.

#### **ARCH 1990. Elective. 1-4 Hours.**

Offers elective credit for courses taken at other academic institutions. May be repeated without limit.

#### **ARCH 2130. Site, Space, and Program. 6 Hours.**

Studies how to analyze, draw, and model the built environment. Students engage in issues of program, composition, type, and material. Offers students the opportunity to think conceptually about architectural design.

#### **ARCH 2140. Urban Institutions. 6 Hours.**

Studies how to analyze, model, and intervene in the city. Offers students an opportunity to engage in urban analysis, urban massing strategies, and architectural design of urban institutions.

#### **ARCH 2170. Urban Research Studio: Context, Sustainability, Development. 6 Hours.**

Seeks to develop students' technical skills and critical thinking in the studio environment through a semesterlong research and design project. Offers students an opportunity to investigate an urban site in the Boston area: investigating possible solutions, focusing on strengthening conceptual strategies, and articulating a developed argument through their research and design process.

#### **ARCH 2240. Architectonic Systems. 4 Hours.**

Introduces the theory of materials and structures. Examines basic structural elements in masonry and wood construction. Uses historical and current building types to explore the relationship between structure, materials, construction process, and architectural space. Includes lectures, discussions, field trips, and student presentation of structural models and diagrams.

#### **ARCH 2250. Introduction to Sustainable Design in Architecture. 4 Hours.**

Explores the issues and practices of architectural design as it relates to natural systems, using critical readings of seminal and current texts, lectures, films, field trips, and projects that use both design and analysis as means of inquiry. Examines varied approaches to sustainable design, including using nature and wilderness as models; biophilia; biomimicry; material sources and reuse; accounting systems such as LEED, Zero Net Carbon, and the 2030 Challenge; and the Living Building Challenge. Course work couples these thematic explorations with projects that investigate the application of the ideas in built form. Designed to offer both a broad understanding of sustainable design and a deep understanding of the varied ways one might approach green as a design professional.

**ARCH 2260. Introduction to Building Systems. 4 Hours.**

Introduces fundamentals of building technology and explores technology as means and manifestation of architecture in the world. Using a systems approach, studies the interactions among natural forces, material properties, technological capabilities, and human cultural values and the ways these relationships give rise to architecture. Considers a series of physical principles—including gravity, moisture, heat, light, and air—to reveal specific architectural possibilities and material responses. Explores the ways design shapes the interaction of materials and forces to provide for human safety, shelter, comfort, and delight through a combination of hands-on workshops, seminal readings, and design exercises.

**ARCH 2310. Chinese Architecture 1: Premodern. 4 Hours.**

Covers the development of the built environment in China from prehistory to the nineteenth century. Emphasizes technological transformation, structural and stylistic evolution, cultural exchange, and ideological engagement.

**ARCH 2320. Chinese Architecture 2: Modern. 4 Hours.**

Covers the development of the built environment in China from 1840 to the present. Emphasizes educational and professional shifts in architectural practice, political engagement in the design process, structural and technological transformation, conceptual background, and global impact.

**ARCH 2330. Architecture, Modernity, and the City, 1800 to 1910. 4 Hours.**

Focuses on architecture and urban design in the United States and Europe from 1800 to 1910. Major topics include the birth of the modern city and urban planning, capitalism and industrialization, modern typologies, infrastructure, urban parks and early suburbs, materials and technology, Western architecture in colonial India and Asia, architectural education, and modern architectural theory.

**ARCH 2331. Recitation for ARCH 2330. 0 Hours.**

Offers a small-group discussion format to cover material in ARCH 2330.

**ARCH 2335. Architecture and Politics. 4 Hours.**

Draws on examples from the late 19th century to the present to study how governments have sought to use buildings and public spaces to advance political ideals. Considers a range of building projects (public buildings, housing, public spaces, infrastructure) advanced by liberal democracies as well as those designed for authoritarian regimes. Focuses on individual projects and the political circumstances tied to their making. Also considers the afterlife of projects associated with discredited regimes—especially those of Nazi Germany and Fascist Italy—as well as the ways in which private individuals, corporations, and other agencies have worked in tandem or in opposition to official narratives. Theoretical and critical texts that explore the dynamic between physical environment and political power help frame class discussion at key moments.

**ARCH 2340. Architecture, Modernity, and the City, 1910 to 1980. 4 Hours.**

Examines the forms and principles of European and American architecture of the twentieth century in the context of society's changing conditions. Major topics include craft vs. industry, avant-garde and "other" modernisms, the architect and critical positions, suburbs, new concepts of space, modernism and its critique, and global extensions of modernism.

**ARCH 2341. Recitation for ARCH 2340. 0 Hours.**

Offers a small-group discussion format to cover material in ARCH 2340.

**ARCH 2350. American Architecture. 4 Hours.**

Examines several recurring themes in the history of architecture and urbanism in the United States from the mid-18th century to the mid-20th century. Discusses how notions of environmental determinism continuously shaped and reshaped American understandings of architecture, especially in urban settings. Questions the relationship between architecture and power and the ways in which the burgeoning republic, and then the imperial superpower, attempted to reconcile its often contested identity through built form. Explores the role of technology in shaping architectural designs and construction practices.

**ARCH 2550. Real Estate Development and Design. 4 Hours.**

Introduces the challenges and opportunities in real estate development for design professionals. Offers students an opportunity to obtain the knowledge and skills necessary to engage meaningfully in real estate development, which is exercised through application to real-life problems. Reviews the property types, terminology, and core concepts in the real estate industry; introduces a set of analytical tools and techniques for evaluating real estate investment and development; and explores innovation and entrepreneurship in real estate development practice models.

**ARCH 2990. Elective. 1-4 Hours.**

Offers elective credit for courses taken at consortium institutions. May be repeated without limit.

**ARCH 2991. Research in Architecture. 1-4 Hours.**

Offers an opportunity to conduct introductory-level research or creative endeavors under faculty supervision.

**ARCH 3155. Studio Abroad. 1-6 Hours.**

Offers students an opportunity to understand the challenges of designing contemporary building types in parallel situations—the dense historic fabric of a city with ancient origins that has been manipulated over centuries and the more diffused, diverse, and irregular landscape typically found on the edge of the modern city. Offered only abroad.

**ARCH 3170. Architecture, Infrastructure, and the City. 6 Hours.**

Offers a studio course addressing the architectural and urbanistic consequences at the intersection of large-scale infrastructure and the contemporary city. Focuses on how to integrate buildings and neighborhoods with highways, rail lines, storm water management, bus, bike, parking, rivers, watersheds, and industrial networks.

**ARCH 3210. Environmental Systems. 4 Hours.**

Explores the interaction of environmental, physical, and energy systems in architecture. Offers students an opportunity to learn the fundamentals of building science as design opportunities to create particular conditions of light and shadow; provide shelter from heat, cold, and rain; and incorporate systems that provide for water, electricity, and sanitation. Course revolves around a series of workshops, labs, and design exercises.

**ARCH 3211. Recitation for ARCH 3210. 0 Hours.**

Offers a small-group discussion format to cover material in ARCH 3210 and provide opportunities for hands-on and creative work, both individually and in teams.

**ARCH 3351. Architecture Topics Abroad: Theory. 1-4 Hours.**

Explores, defines, and analyzes the embodied time within urban artifacts (ruins, buildings, urban landscape and space, infrastructure) of a historic context. Focuses on the architecture and urban artifacts that are the consequence of the evolutionary forces of urban civilization over long durations of time rather than focusing on iconographic examples of architecture and urbanism produced within a specific moment in history. Students engage in theoretical readings, group discussions, site visits, analyses of evolutionary urban artifacts, writing, and drawings. Assigned readings cover a broad range of theories about analyzing and interpreting the urban context and its history. These readings are complemented by both required writing assignments and site visits to many urban artifacts, buildings, and spaces. May be repeated without limit.

**ARCH 3352. Architecture Topics Abroad: Drawing. 4 Hours.**

Examines and engages historic architecture and urbanism through freehand drawing. Offers students an opportunity to learn how to draw in freehand like an architect—drawing in a creative, interpretive, precise, and analytical manner—as well as to learn about the history and cultural context of the great architectural monuments and urban spaces that they are analyzing and drawing, including major architectural monuments. Studies new skills of drawing, the conventions of architectural representation, and the cultural history of the built environment. May be repeated without limit.

**ARCH 3361. Architecture and Urbanism Abroad. 4 Hours.**

Covers the detailed history of architecture and urban development in the host city, from its founding to the present. Offered only abroad.

**ARCH 3362. Seminar Abroad. 1-4 Hours.**

Offers students an opportunity to learn and discuss historical and contemporary European theory and criticism, from Vitruvius and Alberti to contemporary figures. Raises and addresses architectural questions of composition, society, politics, and environment. Offered only abroad.

**ARCH 3363. Field Study Topics Abroad. 1-4 Hours.**

Offers students an opportunity to travel to select cities where, together with the faculty lead, they study firsthand the built and natural environment. This field study course is closely tied to ARCH 3361.

**ARCH 3370. Topics in Architectural History. 4 Hours.**

Covers a variety of topics in architectural history and theory with the aim of offering students a greater degree of choice in shaping their curriculum and the opportunity to study subjects that interest them in greater detail. Course topics encompass a wide range of themes and complement the mission of the department, the college, and the university. Taught by a number of different faculty members according to their interests and expertise.

**ARCH 3440. Workshop Topics Abroad. 1-4 Hours.**

Offers students an opportunity to develop their analytical, artistic, and craft abilities, dealing with topics and methods outside the confines of the architectural disciplines such as site-specific installations, graphic novels, and short films, among others.

**ARCH 3450. Advanced Architectural Communication. 4 Hours.**

Builds on CAD (computer-aided design) skills to develop ability to model in three dimensions and develop surfaces and lighting. Also addresses strategies in design communication for effective presentation of digital material.

**ARCH 3990. Elective. 1-4 Hours.**

Offers elective credit for courses taken at consortium institutions. May be repeated without limit.

**ARCH 4850. Urban and Architectural History Abroad. 4 Hours.**

Offers an on-site study of architecture and urban history conducted abroad. Instructors accompany students to visit and lecture about the most significant sites in the history of architecture, art, and urban development of a specific country. In comparison to a traditional on-campus course, the number of examples covered is smaller; however, each example is discussed in much greater detail. Encourages students to discover problems and aspects in art, architecture, and urbanism that have not been raised before, something only possible through direct survey and observation. Offers students an opportunity to obtain a real sense of architectural research without neglecting the basics of the field. Interactions with practicing architects, city planners, policymakers, preservationists, museum professionals, and artists are integral parts of this course. May be repeated without limit.

**ARCH 4960. Architectural Studies Capstone. 4 Hours.**

Offers students an opportunity to deeply explore topics related to architecture and the built environment. Students complete a semester-long intensive research and writing capstone project. Offered in the final year of the BS in Architectural Studies program.

**ARCH 4970. Junior/Senior Honors Project 1. 4 Hours.**

Focuses on in-depth project in which a student conducts research or produces a product related to the student's major field. Combined with Junior/Senior Project 2 or college-defined equivalent for 8 credit honors project. May be repeated without limit.

**ARCH 4990. Elective. 1-4 Hours.**

Offers elective credit for courses taken at consortium institutions. May be repeated without limit.

**ARCH 4993. Independent Study. 1-4 Hours.**

Offers independent work under the direction of members of the department on a chosen topic. Course content depends on instructor. May be repeated without limit.

**ARCH 4996. Experiential Education Directed Study. 4 Hours.**

Draws upon the student's approved experiential activity and integrates it with study in the academic major. Restricted to those students who are using the course to fulfill their experiential education requirement. May be repeated without limit.

**ARCH 5115. Option Studio. 6 Hours.**

Offers an upper-level design studio that covers new studio topics, content, and studio instructors each semester. The studio instructors offer topical content that best aligns with their research and practice expertise, which provides students with the latest concepts in architectural design, theory, and research on a consistently updated and rotating basis. Students select their top choices of studio topics and instructors, giving them more flexibility in the areas for which they would like to focus their education.

**ARCH 5120. Comprehensive Design Studio. 6 Hours.**

Focuses on the materials and making of architecture. Considers architectural connections at all scales, from the nut and bolt to the scale of a door or window to the scale of the whole building and the city. Grounds design proposals upon a tectonic strategy, unlike traditional design studios that produce a schematic design before considering constructional ideas.

**ARCH 5210. Environmental Systems. 4 Hours.**

Explores the ways in which architectural form can create particular conditions of light and shadow; provide shelter from heat, cold, and rain; and incorporate systems that provide for water, electricity, and sanitation. Provides a series of simple and straightforward small-scale design projects.

**ARCH 5211. Recitation for ARCH 5210. 0 Hours.**

Offers a small-group discussion format to cover material in ARCH 5210.

**ARCH 5220. Integrated Building Systems. 4 Hours.**

Studies how to integrate into students' building designs all the environmental and tectonic systems that they have covered in previous architecture courses.

**ARCH 5230. Structural Systems. 4 Hours.**

Introduces the fundamental concepts of structural analysis and design for architecture. Examines the nature of forces and their effects on different types of structural elements; the structural properties of shapes and materials; and the selection, analysis, and design of efficient structural systems that resist the loads acting upon them. Uses historical and contemporary examples to illustrate how the changing context of architectural ideas drives structural form and the selection of structural systems. Includes field trips and student presentations of structural models and diagrams. Restricted to students in the architecture BS program and to students in the three-year MArch program.

**ARCH 5231. Recitation for ARCH 5230. 0 Hours.**

Provides a small-group discussion format to cover examples from the material in ARCH 5230.

**ARCH 5310. Design Tactics and Operations. 4 Hours.**

Encourages students to develop the connections between critical attitudes and techniques in design, through important historical texts. Offers a kind of "great books" approach to the integration of design and history, introducing the writings and seminal designs of Alberti, Palladio, Wright, Le Corbusier, Semper, Sitte, Rowe, Colquhoun, Moneo, Koolhaas, Rossi, Frampton, Venturi and Scott Brown, Scarpa, and Lynch.

**ARCH 5530. Innovative Models in Real Estate Development and Design. 4 Hours.**

Addresses advanced topics in real estate development and finance and examines innovative models of practice in real estate development available to design professionals. Studies a set of advanced analytical tools and techniques for evaluating the cash flows and economic returns of real estate investment and development. Introduces advanced methods of financing real estate and the structure of capital markets involved in property assets. Uses the case instruction method and includes active, discussion-oriented learning.

**LARC 1990. Elective. 1-4 Hours.**

Offers elective credit for courses taken at other academic institutions. May be repeated without limit.

**LARC 2130. Sustainable Urban Site Design. 6 Hours.**

Focuses on site planning and design with an emphasis on parks and open-space systems in the adaptive reuse of urban sites. Projects focus on the creation and cultivation of public space, transformation of site conditions, and development of sustainable site materials. Emphasizes site analysis, development of an individual design process, and design communication strategies. This studio course introduces students to urban design precedents, site research, and remediation methods through case studies, lectures, site visits, and workshops.

**LARC 2140. Designed Urban Ecologies. 6 Hours.**

Continues LARC 2130. Focuses on sustainable community/campus/neighborhood design at the intersection of large-scale urban and environmental systems. Primary topics include mixed-use programming in relation to systems ranging from zoning and transit to the material flows of human and wildlife habitats. This studio course introduces basic geographical information systems (GIS) and application of landscape ecology principles. Projects examine the role of landscape systems and the formation and reformulation of land development scenarios.

**LARC 2230. Introduction to Sustainable Site Planning and Design. 4 Hours.**

Addresses fundamental techniques of sustainable site design in the built environment, including earthworks, water, and soils, using current-day storm events. Primary topics include topography, site grading, study models, universal accessibility, and storm water considerations in urban and other built environments. Introduces students to urban tree planting techniques, graphic communications, basic site materials, and construction details.

**LARC 2240. Sustainable Site Construction and Detailing. 4 Hours.**

Continues LARC 2230. Focuses on construction technologies, methods, and materials for sustainable site elements, including environmental performance infrastructures, circulation systems, and basic site structures. Introduces structural systems for site work via lecture and in-class exercises.

**LARC 2330. Cities, Landscape, and Modern Culture. 4 Hours.**

Presents the themes, core theories, and iconic works that gave shape to modernism in landscape architecture and urbanism. Focusing on the eighteenth-century through mid-twentieth-century projects and designers, lectures examine contextual factors and resulting formal, spatial, organizational, and material characteristics of built works. Offers students an opportunity to practice formulation of a critical design perspective via reading responses, project analysis, written work, and exams.

**LARC 2340. Cities, Landscape, and Contemporary Culture. 4 Hours.**

Presents the themes, core theories, and iconic works that shape the field of contemporary landscape architecture and urbanism. Focusing on the late twentieth century through contemporary projects and designers, lectures examine contextual factors and resulting formal, spatial, organizational, and material characteristics of built works. Offers students an opportunity to practice formulation of a critical design perspective via reading responses, project analysis, written work, and exams.

**LARC 2430. Plants, People, and Landscape Change. 4 Hours.**

Uses the study of New England's plant communities and plant identification as a framework to consider the evolution of the New England landscape from European colonization to the present. Combines field study with lectures and class discussion. Human activity, land use, and settlement patterns all influence the development of landscape, and our cultural history is expressed in the species demographics, land forms, and ecosystem dynamics of our environment.

**LARC 2440. Planting Design. 4 Hours.**

Combines horticultural and ecological field study with studio design exercises to deliver introductory to advanced planting design techniques. Primary topics include how to design phytoremediation strategies for contaminated sites, seasonal planting considerations, strategic phasing, and maintenance techniques. This is a workshop-based course.

**LARC 2990. Elective. 1-4 Hours.**

Offers elective credit for courses taken at consortium institutions. May be repeated without limit.

**LARC 3155. Studio Abroad. 6 Hours.**

Offers students an opportunity to learn sustainable landscape and urban design techniques in an international setting. Key topics include cultural influences on urban revitalization and ecological restoration, innovative material and site technologies, regional best management practices (BMPs), and integration of diverse historical influences into the design process.

**LARC 3170. Landscape Planning and Urbanism Studio. 6 Hours.**

Introduces sustainable landscape planning techniques with an emphasis on adaptive urbanism. Key topics include the designed and managed relationship of cities to their regional ecologies, such as sub/urbanized watersheds and coastal zones, as well as the spatial, material, and programmatic roles of environmental infrastructures in the civic landscape. Particularly emphasizes the market-based integration of recreation, transit, food, housing, and industrial networks with living systems such as urban forests, riparian corridors, managed habitats, and constructed wetlands.

**LARC 3990. Elective. 1-4 Hours.**

Offers elective credit for courses taken at consortium institutions. May be repeated without limit.

**LARC 5110. Advanced Design for Urban Environments Studio. 6 Hours.**

Focuses on ecological, economic, and social resiliency of designed urban environments in response to globalization. Contemporary case studies of urban change provide the basis for design investigation into issues such as the impact of shifting industries on Detroit (deurbanization) or Shenzhen (rapid densification); shifting weather and water patterns in densely populated regions; societal shifts, from generational demographics to political upheavals and militarization/demilitarization of the urban landscape. Emphasizes the integration of interdisciplinary perspectives and advanced design analysis, conceptualization, and visualization skills into development of a global perspective on managing change in the built environment.

**LARC 5120. Comprehensive Design Studio. 6 Hours.**

Offers students an opportunity to design and develop a site or district including all of its requisite systems. Students draw on their landscape architectural education to produce a design both responsive to specific criteria and prototypical of ways to build sustainable and adaptable public landscapes—often described as “resilience.” Projects are expected to respond to and integrate their contexts (urban, environmental, climatic, and economic); meet spatial, performative, and programmatic requirements and technical demands (materials, implementation and management strategies); and dynamic processes at play within and around the project site.

**LARC 5210. Landscape Ecology. 4 Hours.**

Introduces fundamental-to-advanced concepts in the field of landscape and urban ecology. Focuses on the landscape-scale spatial structure, temporal patterns, and geographic ranges produced by the intersection of large-scale environmental and human processes. Emphasizes spatial taxonomies (patch, corridor, mosaic, granularity, edge, ecotone) produced across diverse landscape types influenced by human development and landscape dynamics in the built environment (disturbance, fragmentation, accumulation, and succession). Incorporates basic techniques in geographic-information-system software.

**LARC 5220. Sustainable Landscape Practices. 4 Hours.**

Offers a lecture/workshop/field-based course that builds upon landscape technology skills introduced in LARC 2230 and LARC 2240, with a focus on ecotechnologies operating in the built environment. Core topics include design and implementation metrics, material life-cycle management, funding models, and aesthetic and cultural aspects. Potential topics include green roofs, green walls, bioswales, pervious pavements, constructed wetlands, “complete street” elements, geosensor networks, alternative waste management, water detention and energy generation methods, and living infrastructures for coastal environments.

**LARC 5310. Urban Landscape Seminar. 4 Hours.**

Offers a discussion-based seminar focusing on case studies of influential works in contemporary landscape, urbanism, and sustainable environmental design. Encourages students to seek interdisciplinary perspectives toward development of critical-thinking skills in relation to forces shaping urban environments in contemporary global culture. A diverse range of material from published design criticism to open-source social media engagement provides basis for discussion and written and oral presentations.

**LARC 5420. Professional Practice in Landscape Architecture. 4 Hours.**

Offers a lecture- and case-study-based course focusing on strategic planning, business models, organizational structures, logistics, and regulatory paradigms associated with professional practice in landscape architecture. Core topics provide an overview of common technical and business procedures, including RFQs; RFPs; marketing, public relations, and client management; hiring and human resource management; review board/regulatory boards; permitting; and licensure.

**Landscape Architecture Courses**

Search LARC Courses using FocusSearch (<http://catalog.northeastern.edu/class-search/?subject=LARC/>)

**LARC 1990. Elective. 1-4 Hours.**

Offers elective credit for courses taken at other academic institutions. May be repeated without limit.

**LARC 2130. Sustainable Urban Site Design. 6 Hours.**

Focuses on site planning and design with an emphasis on parks and open-space systems in the adaptive reuse of urban sites. Projects focus on the creation and cultivation of public space, transformation of site conditions, and development of sustainable site materials. Emphasizes site analysis, development of an individual design process, and design communication strategies. This studio course introduces students to urban design precedents, site research, and remediation methods through case studies, lectures, site visits, and workshops.

**LARC 2140. Designed Urban Ecologies. 6 Hours.**

Continues LARC 2130. Focuses on sustainable community/campus/neighborhood design at the intersection of large-scale urban and environmental systems. Primary topics include mixed-use programming in relation to systems ranging from zoning and transit to the material flows of human and wildlife habitats. This studio course introduces basic geographical information systems (GIS) and application of landscape ecology principles. Projects examine the role of landscape systems and the formation and reformulation of land development scenarios.

**LARC 2230. Introduction to Sustainable Site Planning and Design. 4 Hours.**

Addresses fundamental techniques of sustainable site design in the built environment, including earthworks, water, and soils, using current-day storm events. Primary topics include topography, site grading, study models, universal accessibility, and storm water considerations in urban and other built environments. Introduces students to urban tree planting techniques, graphic communications, basic site materials, and construction details.

**LARC 2240. Sustainable Site Construction and Detailing. 4 Hours.**

Continues LARC 2230. Focuses on construction technologies, methods, and materials for sustainable site elements, including environmental performance infrastructures, circulation systems, and basic site structures. Introduces structural systems for site work via lecture and in-class exercises.

**LARC 2330. Cities, Landscape, and Modern Culture. 4 Hours.**

Presents the themes, core theories, and iconic works that gave shape to modernism in landscape architecture and urbanism. Focusing on the eighteenth-century through mid-twentieth-century projects and designers, lectures examine contextual factors and resulting formal, spatial, organizational, and material characteristics of built works. Offers students an opportunity to practice formulation of a critical design perspective via reading responses, project analysis, written work, and exams.

**LARC 2340. Cities, Landscape, and Contemporary Culture. 4 Hours.**

Presents the themes, core theories, and iconic works that shape the field of contemporary landscape architecture and urbanism. Focusing on the late twentieth century through contemporary projects and designers, lectures examine contextual factors and resulting formal, spatial, organizational, and material characteristics of built works. Offers students an opportunity to practice formulation of a critical design perspective via reading responses, project analysis, written work, and exams.

**LARC 2430. Plants, People, and Landscape Change. 4 Hours.**

Uses the study of New England's plant communities and plant identification as a framework to consider the evolution of the New England landscape from European colonization to the present. Combines field study with lectures and class discussion. Human activity, land use, and settlement patterns all influence the development of landscape, and our cultural history is expressed in the species demographics, land forms, and ecosystem dynamics of our environment.

**LARC 2440. Planting Design. 4 Hours.**

Combines horticultural and ecological field study with studio design exercises to deliver introductory to advanced planting design techniques. Primary topics include how to design phytoremediation strategies for contaminated sites, seasonal planting considerations, strategic phasing, and maintenance techniques. This is a workshop-based course.

**LARC 2990. Elective. 1-4 Hours.**

Offers elective credit for courses taken at consortium institutions. May be repeated without limit.

**LARC 3155. Studio Abroad. 6 Hours.**

Offers students an opportunity to learn sustainable landscape and urban design techniques in an international setting. Key topics include cultural influences on urban revitalization and ecological restoration, innovative material and site technologies, regional best management practices (BMPs), and integration of diverse historical influences into the design process.

**LARC 3170. Landscape Planning and Urbanism Studio. 6 Hours.**

Introduces sustainable landscape planning techniques with an emphasis on adaptive urbanism. Key topics include the designed and managed relationship of cities to their regional ecologies, such as sub/urbanized watersheds and coastal zones, as well as the spatial, material, and programmatic roles of environmental infrastructures in the civic landscape. Particularly emphasizes the market-based integration of recreation, transit, food, housing, and industrial networks with living systems such as urban forests, riparian corridors, managed habitats, and constructed wetlands.

**LARC 3990. Elective. 1-4 Hours.**

Offers elective credit for courses taken at consortium institutions. May be repeated without limit.

**LARC 5110. Advanced Design for Urban Environments Studio. 6 Hours.**

Focuses on ecological, economic, and social resiliency of designed urban environments in response to globalization. Contemporary case studies of urban change provide the basis for design investigation into issues such as the impact of shifting industries on Detroit (deurbanization) or Shenzhen (rapid densification); shifting weather and water patterns in densely populated regions; societal shifts, from generational demographics to political upheavals and militarization/demilitarization of the urban landscape. Emphasizes the integration of interdisciplinary perspectives and advanced design analysis, conceptualization, and visualization skills into development of a global perspective on managing change in the built environment.

**LARC 5120. Comprehensive Design Studio. 6 Hours.**

Offers students an opportunity to design and develop a site or district including all of its requisite systems. Students draw on their landscape architectural education to produce a design both responsive to specific criteria and prototypical of ways to build sustainable and adaptable public landscapes—often described as “resilience.” Projects are expected to respond to and integrate their contexts (urban, environmental, climatic, and economic); meet spatial, performative, and programmatic requirements and technical demands (materials, implementation and management strategies); and dynamic processes at play within and around the project site.

**LARC 5210. Landscape Ecology. 4 Hours.**

Introduces fundamental-to-advanced concepts in the field of landscape and urban ecology. Focuses on the landscape-scale spatial structure, temporal patterns, and geographic ranges produced by the intersection of large-scale environmental and human processes. Emphasizes spatial taxonomies (patch, corridor, mosaic, granularity, edge, ecotone) produced across diverse landscape types influenced by human development and landscape dynamics in the built environment (disturbance, fragmentation, accumulation, and succession). Incorporates basic techniques in geographic-information-system software.

**LARC 5220. Sustainable Landscape Practices. 4 Hours.**

Offers a lecture/workshop/field-based course that builds upon landscape technology skills introduced in LARC 2230 and LARC 2240, with a focus on ecotechnologies operating in the built environment. Core topics include design and implementation metrics, material life-cycle management, funding models, and aesthetic and cultural aspects. Potential topics include green roofs, green walls, bioswales, pervious pavements, constructed wetlands, “complete street” elements, geosensor networks, alternative waste management, water detention and energy generation methods, and living infrastructures for coastal environments.

**LARC 5310. Urban Landscape Seminar. 4 Hours.**

Offers a discussion-based seminar focusing on case studies of influential works in contemporary landscape, urbanism, and sustainable environmental design. Encourages students to seek interdisciplinary perspectives toward development of critical-thinking skills in relation to forces shaping urban environments in contemporary global culture. A diverse range of material from published design criticism to open-source social media engagement provides basis for discussion and written and oral presentations.

**LARC 5420. Professional Practice in Landscape Architecture. 4 Hours.**

Offers a lecture- and case-study-based course focusing on strategic planning, business models, organizational structures, logistics, and regulatory paradigms associated with professional practice in landscape architecture. Core topics provide an overview of common technical and business procedures, including RFQs; RFPs; marketing, public relations, and client management; hiring and human resource management; review board/regulatory boards; permitting; and licensure.