

ARCH. ENG. BUILDING SYSTEMS, INSPECTION, CODES (AEBX1-CE)

AEBX1-CE 9300 Construction Methods and Materials: Building Core and Shell (3 Credits)

Examine the methods, materials, and structural systems used in constructing the core and shell components of high-rise buildings. Topics include site work; foundations; steel, reinforced concrete, and wood framing; and floor, exterior wall, and roof systems. Acquire an overview of working drawings; specifications; and the roles of the owner, architect/engineer, constructor, and project management representative in the construction process.

Note: Registering at least two weeks prior to the start of the course date is highly recommended. Popular classes fill up quickly and more specialized classes need sufficient enrollment.

For general information about this course, please call 212-992-3336 or email sps.realestate@nyu.edu.

If you are registered for an online course and are not able to access/view your course in Brightspace, please note the following:

- New students registering two days or less before the start date of the course may experience delayed access.

For additional technical support, contact the [IT Service Desk](http://www.nyu.edu/its/askits/helpdesk) (available 24/7/365) at [212-998-3333](tel:212-998-3333) or AskITS@nyu.edu.

Grading: SPS Non-Credit Graded

Repeatable for additional credit: Yes

AEBX1-CE 9350 Construction Methods and Materials: Building Interiors (3 Credits)

Examine the methods, materials, and systems used in constructing the architectural components of buildings. Topics include drywall construction systems; light gauge metal framing; lath and plaster; brick, stone, concrete, and miscellaneous masonry; iron, steel, and miscellaneous metals and alloys; fireproofing; woods and plastics, including fiberglass-reinforced plastics; fasteners; thermal and moisture protection; damp proofing and waterproofing; doors, windows, glass, and glazing; finish ceilings; finish flooring, including tile and terrazzo; and paints, coatings, stains, primers, and sealers.

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Grading: SPS Non-Credit Graded

Repeatable for additional credit: Yes

AEBX1-CE 9351 Building Mechanical and Electrical Systems and Equipment (3 Credits)

Designed for both construction and real estate professionals, this introductory course provides a technical overview of commercial building systems, including design principles, selection and choice, installation, and operating costs. Topics include electrical distribution systems; lighting applications and solutions; basic thermal processes, including heating and cooling; mechanical equipment, energy codes, and commissioning; basic solar design concepts (passive and active); sustainable design concepts; water supply and drainage systems; fire protection systems and fire safety; and vertical transportation.

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Grading: SPS Non-Credit Graded

Repeatable for additional credit: Yes

AEBX1-CE 9353 Reading and Interpreting Construction Drawings (4 Credits)

Construction project managers need to be able to read construction drawings and plans accurately. This course covers plans, specifications, and construction/working drawings for reinforced concrete, steel, wood frame, and masonry construction, as well as for some mechanical and electrical construction. Topics include floor plans, elevations, sections, details, symbols, schedules, specifications, and abbreviations used in architectural and engineering drawings.

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Grading: SPS Non-Credit Graded

Repeatable for additional credit: Yes

AEBX1-CE 9473 New York City Building Approvals, Permits, and Certificates of Occupancy (2 Credits)

Learn how to tailor your project to comply with New York City Building Codes and regulatory agencies, such as the Fire, Housing Preservation and Development, and Parks Departments. Examine recent procedural changes that have an impact on the design and project management process. Topics include the effects of zoning on a project, Department of Buildings filing and permitting procedures, egress calculations and layout for public assembly spaces, basic plan requirements for submission to regulatory agencies, and types of applications. Discuss the city violation process and learn how to obtain an approval/permit in a shorter amount of time.

Grading: SPS Non-Credit Graded

Repeatable for additional credit: Yes

AEBX1-CE 9474 Understanding the New York City Building Code (3 Credits)

Discuss the legal and technical framework of the New York City Building Code, including code applicability to work performed on new and existing buildings. Topics include an overview of zoning and other applicable codes, general provisions and administrative requirements, licenses, building construction, building code, and references.

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Grading: SPS Non-Credit Graded

Repeatable for additional credit: Yes

AEBX1-CE 9475 Understanding the New York City Building Code (Con Edison) (3 Credits)

Building codes and zoning regulations help shape our cities and buildings, which impact the inhabitants (you and me) whose collective values determine changes to building codes and zoning regulations, which continue to evolve.

Professionals in the design, construction, real estate, and related fields with varied experience with the New York City Construction Codes and Zoning Resolution will expand their understanding of the purpose, development, interpretation, implementation, and enforcement of the codes and zoning.

The course focuses on the 2022 Code, which became effective on November 7, 2022. Since 2008, the NYC codes have been based on the International Building Codes (IBC). The IBC, with some local modifications, is used in 50 states, NYC, DC, Guam, and the US Virgin Islands.

In NYC, owners can choose to renovate or expand many buildings under optional provisions of the 1968 Building code, which was replaced by the IBC based codes in 2008. Therefore, some lessons include comparisons of the 1968 code and the current code, and guidelines for which code is applicable.

Major areas of focus in this course will include Use and Occupancy Classification, Building Area and Height Limitations, Types of Construction, Means of Egress, Fire Rated Construction, Accessibility for Persons with Disabilities, Fire Protection Systems, Post superstorm Sandy flood response, High Rise buildings, the NYC Zoning Resolution, and Residential Conversions of commercial and manufacturing buildings, and Energy efficient and sustainable design.

Grading: SPS Non-Credit Graded

Repeatable for additional credit: Yes