

ARCHITECTURE ENGINEERING ELECTRICAL SYSTEMS DESIGN (AEEL1-CE)

AEEL1-CE 9476 Electrical Codes for Electrical Systems Design (0 Credits)

The emphasis of this course is on the New York City Electrical Code; however, the National Electrical Code is presented when germane to the discussion. Topics include the New York City Electrical Code, review of New York City Electrical Code Bulletins and related Buildings Department and Bureau of Electrical Control directives, and variance procedures and code interpretations.

Grading: SPS Non-Credit Graded

Repeatable for additional credit: Yes

AEEL1-CE 9501 Electrical Systems Design I (4 Credits)

Study electrical principles and their application to electrical equipment, circuits, and systems used in commercial and residential buildings. Topics include elements of DC and AC circuits and calculations, power, power factor, instruments, and three-phase systems.

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 or AskITS@nyu.edu.

Grading: SPS Non-Credit Graded

Repeatable for additional credit: Yes

AEEL1-CE 9502 Electrical Systems Design II (4 Credits)

Building upon <https://www.sps.nyu.edu/professional-pathways/courses/aeel1-ce9501> this course analyzes the various design elements that make up electrical systems. Topics include wire calculations, raceway sizing, branch circuits, motor circuits, fuses, circuit breakers, short circuit protection, feeder design, voltage drop calculations, transformers, commercial calculations, and the National Electric Code as it relates to the above topics.

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.

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Grading: SPS Non-Credit Graded

Repeatable for additional credit: Yes

AEEL1-CE 9503 Electrical Systems Design III (4 Credits)

A continuation of <https://www.sps.nyu.edu/professional-pathways/courses/aeel1-ce9502> this course focuses on additional design elements of greater complexity. Topics include service entrance layouts, switchboard configurations and spacing requirements, grounding, ground-fault protection, panel board arrangements and distribution methods, emergency generators, automatic transfer switches, uninterruptible power systems, lighting layouts, lighting calculations, and the National Electric Code as it relates to the above topics.

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.

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Grading: SPS Non-Credit Graded

Repeatable for additional credit: Yes

AEEL1-CE 9504 Electrical Systems Design IV (4 Credits)

The elements of electrical design discussed in [Electrical Systems Design I](https://www.sps.nyu.edu/professional-pathways/courses/aeel1-ce9501), [Electrical Systems Design II](https://www.sps.nyu.edu/professional-pathways/courses/aeel1-ce9502), and [Electrical Systems Design III](https://www.sps.nyu.edu/professional-pathways/courses/aeel1-ce9503) are applied to a high-rise office building setting in this final course of the series. Work in a design team to create a final set of working drawings, with particular attention to the development of the service entrance, single line, and light and power riser diagrams.

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:

- It may take at least 24 hours from the time you registered for your information to be transferred into Brightspace.
- 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 or AskITS@nyu.edu.

Grading: SPS Non-Credit Graded

Repeatable for additional credit: Yes

AEEL1-CE 9507 Electrical Systems Design I (0 Credits)

Study basic electrical principles and their application to electrical equipment, circuits, and systems used in commercial and residential buildings. Topics include elements of DC and AC circuits and simplified calculations, grounding, power and power factor, instruments, and fuses and circuit breakers.

Grading: SPS Non-Credit Graded

Repeatable for additional credit: Yes

AEEL1-CE 9508 Electrical Systems Design II (0 Credits)

Building on *Electrical Systems Design I*, this course analyzes the various design elements that make up building electrical systems. Topics include branch circuits, conduit and wire, motor circuits and overcurrent protection, feeder design, voltage drop calculations, transformers, lighting and lighting calculations, and grounding.

Grading: SPS Non-Credit Graded

Repeatable for additional credit: Yes

AEEL1-CE 9509 Electrical Systems Design III (0 Credits)

A continuation of *Electrical Systems Design II*, this course focuses on additional design elements of greater complexity. Topics include service entrance layouts, switchboards, grounding, ground-fault protection, standby emergency systems, short circuit protection, and service load calculations.

Grading: SPS Non-Credit Graded

Repeatable for additional credit: Yes

AEEL1-CE 9510 Electrical Systems Design IV (3 Credits)

The elements of electrical design discussed in *Electrical Systems Design I, II* and *III* are examined within a high-rise office building setting. Design teams are established to develop a final set of working drawings. Particular attention is paid to the development of the service entrance, single line, and light and power riser diagrams.

Grading: SPS Non-Credit Graded

Repeatable for additional credit: Yes

AEEL1-CE 9511 Electrical Systems Design V (0 Credits)

Learn about the main design features of power distribution systems for various types of sophisticated buildings. Power disturbances and solutions, standby generation systems, uninterruptible power system operation and applications, grounding techniques, and ground-fault protection are also covered.

Grading: SPS Non-Credit Graded

Repeatable for additional credit: Yes