BIOL-UA 327/ENVST-UA 327 New York Underground

Instructor:
Katie Schneider-Paolantonio

Course Description:
Every day millions of people walk the streets of New York City. But what is happening below those city streets? This is an environmental science course that will investigate the life and resources underneath NYC. The course is divided into three principle modules: energy, transportation, and water (potable and wastewater). For each module, we will discuss the mechanics, history and significance of the infrastructure from the perspective of environmental scientists. At the end of the course we relate the biotic components of New York’s fascinating dendritic underground environment. This seminar course will integrate classroom learning with practical experience and hands-on application through data collection and field trips.

Pre-requisite:
Principles of Biology II (BIOL-UA 12) or Environmental System Science (ENVST-UA 100)

Textbook and Required Materials:
Additional readings will be posted on NYU Classes.

Grading:
Module papers and idea sketch 60%
Paper responses and data collection plans 30%
Discussion questions and participation 10%

Topics:
Introduction to the course
Introduction to energy module
Trip to NYU Cogen plant
Book/paper discussion
Field data collection
Guest lecture: National Grid
Renewable gas, environmental management
Field trip to Newtown Creek wastewater treatment plant
Lecture: introduction to water module and book discussion
Field trip to Croton
Introduction to transportation module
Guest lecturer: NYC
Sustainability/climate initiatives at NYCT
Field data collection part I
Field trip to transit museum
Field data collection part II
Construction site visit
Discuss biology sketches