Urban Greening Lab: New York

This reading and field intensive course explores the theory and practice of urban “greening” by examining an urban green space in New York City. Drawing on analytical tools from the social and biophysical sciences, we will consider how New York’s historical and contemporary context shape the meaning, implementation, and social experience of its environmental spaces. We will ask, “What does it mean to green New York? What does it mean to green a city?” Rather than accepting the answer to this term as self-evident, we will give it clear analytical contours and apply our research questions accordingly.

Our analytical approach integrates ecosystem ecology concepts, urban design principles, and social scientific sensibilities.

Course Objectives

1. Define key theoretical concepts in urban ecology.
2. Identify and analyze key local and global processes that influence the ecological health of our field site in New York City.
3. Undertake, apply and evaluate primary research in urban ecology.
4. Explain the function and utility of quantitative and qualitative research strategies for understanding environmental change in cities.

Assignments

1. Reading group work: posts, facilitation, full and active participation (20%)
2. Class attendance and active participation (20%)
3. Midterm exam (20%)
4. Urban Environmental Analysis, in stages (40%)

Course Commitments

• Mutual respect: careful listening and active discussion with everyone in the class. We are in this together.
• Careful and thorough engagement with course materials is the only way to get the most out of the class.
• Clear communication regarding unavoidable absences or incomplete work: If any circumstance hinders your participation in this course, please speak with me in advance. This course relies on experiential learning, so if you will not be able to attend every session, it may not be the right fit for you this semester.
• Unexcused absences will adversely affect your grade. This is in fairness to your colleagues.
• Give credit where credit is due: plagiarism is a serious offense. We check all work to be sure it is original and your own.
• No electronic devices (cell phones or laptops) should be used in seminar sessions of the class unless you are giving a presentation. We may make class-wide exceptions for specific field projects.
• No food is permitted in class unless you are sharing with everyone.
• Please be patient with e-mail. I try to respond to class e-mail within 24 hours, but this cannot always be guaranteed. Your best bet: speak to me directly just before, or just after, a class meeting.

Major Due Dates

• Research Question draft no later than October 10
### Class Format:

Class meets for a long session on Monday afternoons. This is a **field seminar**, which means that we will combine field work with lecture time, group discussions, and student facilitation. The course will be as rich as we make it: the more we contribute through thorough preparation and careful engagement with the field site and the materials, the more we will all learn. **Please note that attendance and participation are mandatory for all sessions, and will require you to travel to and from our field site.**

### Readings and Films

All readings are available through Classes, Bobst Library, and the NYU Bookstore. You are required to read assigned texts **before class, by the day they are listed on the syllabus.** The Classes site will be the most updated resource for weekly readings, assignments, and other materials.

### Urban Environmental Analysis

One of the best ways to learn about urban environmental change is to undertake an active study. To this end, undertaking an urban environmental analysis is this course’s most significant assignment. This aspect of the course is designed to give you an experiential introduction to interdisciplinary independent research and to engage a complex urban environmental issue as an urban ecologist might. You will a) write a focused research question, b) gather data and undertake some independent fieldwork, and c) explain your findings using key concepts in urban ecology. Your final analysis (a 20-25 page research paper) will contain a discussion of key concepts, archival work from a minimum of 15 peer reviewed sources and references, and, as applicable, primary data.

### Exams

There will be a midterm examination with a format that we will discuss in the weeks leading to the exam. Questions for the midterm will draw from all syllabus and lecture material up to the date of the exam.

### Group Work, Participation, and Field Trips

Each of you will join a research group with a set of other classmates. This group will form a core aspect of your engagement with, and participation in, the class, and it will help create an intellectual esprit de corps among the group as a whole. You are encouraged to meet face-to-face with one another outside of class once a week for at least 30 minutes to collectively work through course material and to develop your urban ecology research projects.

**Field trips are an essential part of the course: please plan your schedule accordingly, in advance.** Whenever possible, travel time to and from a given field site will be calculated so that you are able to reach

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- Annotated literature list October 17
- Midterm Oct 28
- Abstract and Literature Review November 25
- Final Research Presentations Dec 2&9
- Research Paper due by 5pm Dec 16

*Please note that to assure fairness in grading, late assignments are never accepted.*
class in the allotted timeframe. You will be asked to use public transport to reach these sites, so please speak with me directly if this presents any difficulty.

**HONOR CODE**

All written work in this course must be original and composed exclusively by you, the author. You must acknowledge in writing any assistance you receive from the literature, other students, textbooks, internet, or any other source. Plagiarism is a serious offense and will be immediately referred to the Dean’s office.

**DISABILITY DISCLOSURE STATEMENT**

Academic accommodations are available to any student with a chronic, psychological, visual, mobility, learning disability, or who is deaf or hard of hearing. Students should please register with the Moses Center for Students with Disabilities at 212-998-4980.


**READINGS**

Required Books:


A paper field notebook for use on all field trips. We will usually take field notes in the traditional fashion in order to avoid distracting our guest guides and speakers.

Required Articles and Additional Readings are available electronically via the Classes website and/or Bobst Library.

**LECTURE AND READING SCHEDULE**

**September 9: Life Cycles in the Green Urban Fabric**

*Class will meet at Green-Wood. See announcement via email for details.*

Required Reading **before we meet on Monday, Sept 9:**


https://www.green-wood.com/about-history/


https://www.green-wood.com/alive/


Watch:


**Sept 16 Cultural Meaning and Conservation**

*Meet at Green-Wood for a tour with Green-Wood Historian Dr. Jeff Richman. Review his blog here: [https://www.green-wood.com/author/jrichman/](https://www.green-wood.com/author/jrichman/)*


**Read:** In: Resilience in Ecology and Urban Design: Linking Theory and Practice for Sustainable Cities:


**Field Exercise 2** will introduce you and your reading group to inline data & mapping portals called ZOLA and Oasis. It will be distributed after the session and we will go over it in class on Sept 23.

**Sept 23: (Human and Non-Human) Life Cycles and Remembrance**

*Meet at NYU classroom*


**Sept 30: Cycles of Life in the Urban Forest**

*Dr. Sara Evans (Project Manager at Green-Wood and NY State Urban Forestry Expert) will share her long term research and data aggregation on phenology at Green-Wood. Meet at Green-Wood.*

[www.green-wood.com/phenology](http://www.green-wood.com/phenology)

Collecting data on the timing of flora and faunal life-cycles is important for tracking how species are responding to the changing climate, impacted by local environmental changes, and help experts develop predictability models for seasonal change, allergen outbreak, etc. Use this link to browse published papers that use phenologic data collected through Nature’s Notebook:

[https://www.usanpn.org/publications](https://www.usanpn.org/publications)


**Oct 7: Cycling Life: Pollinators, Insects, and Biodiversity in the Urban Forest**

*Dr. Sarah Kornbluth (AMNH) will share her long term research and data aggregation project, the Bee Database. Meet at Green-Wood.*


[https://science.sciencemag.org/content/359/6374/392](https://science.sciencemag.org/content/359/6374/392)

**October 15th Reading Group Project Day**

*Prof Rademacher will be on conference travel at the Rachel Carson Center for Environment and Society in Munich. You and your reading group will be assigned a group field mini-project for this session. Meet at NYU.*

**October 21: Nutrient Cycling and the Life Beneath our Feet: Soils**

*Readings TBA*

*Dr. Richard Shaw of the NYC Soils Institute will share research and insight into the soil history, composition, and structure in this urban forest. Meet at Green-Wood.*

**October 28: Mid-term Exam**

**November 4: What does a sacred green space do?**

*Meet at NYU*


**November 11:** Project work and consultations with the professor *Meet at NYU*

**November 18:** Project work and consultations with the professor *Meet at NYU*

**November 25:** Independent Research Week (and Thanksgiving break week!)

**December 2:** Lab Project Final Presentations *Meet at NYU*

**December 9:** Lab Project Final Presentations