



**Course Syllabus/Fall 2023**

**Ecological History of North America** 21:120:381, 11:573:302

|                             |   |                        |  |
|-----------------------------|---|------------------------|--|
| <b>INSTRUCTORS:</b>         | Claus Holzapfel/Frank Gallagher                 | <b>EMAIL:</b>          | <a href="mailto:holzapfe@newark.rutgers.edu">holzapfe@newark.rutgers.edu</a><br><a href="mailto:gallagher@sebs.rutgers.edu">gallagher@sebs.rutgers.edu</a> |
| <b>OFFICE/OFFICE HOURS:</b> | RUN, Boyden 408/<br>TBA 80 Nelson Ave, 108 (NB) | <b>COURSE WEBSITE:</b> | CANVAS   |
| <b>COURSE LOCATION(S):</b>  | Conklin 445                                     | <b>MEETING TIME(S)</b> | TH, 8:30-11:20AM   |

**COURSE DESCRIPTION:**

Welcome to a class that makes sense of the natural and un-natural space we live in. Almost all of North America today is shaped by human activity. Despite this, the continent still has a wealth of natural resources and harbors a large biodiversity. This class will explore why North America has special ecologies. By exploring the biological history of the continent from pre-human times to today (and even beyond), this class is investigating how the biota (flora and fauna) of the continent developed over the millennia and arrived at its current status. The class ranges from topics such as paleontology, archaeology, historical and biogeography to urban ecology and conservation biology. The topic will be approached using lectures, field trips, student facilitated discussion and paper presentation.

**REQUIRED TEXT:**

*Flannery, T. (2001): The eternal frontier. An ecological history of North America and its people. Atlantic Monthly Press, New York* (or any other edition, or e-format)

In addition to the text, research or review papers (including selected chapters from “edited-volume” books) will be assigned for each topic.

**LEARNING GOALS:**

Ecological history attempts to explain current ecological conditions by retracing the changes that occurred through time. By searching for traces of this change, the historical ecologist can gain a better understanding how current ecosystem function and what can be done to improve them (if needed). Therefore, the main objectives of the new course are (a) to give students a better understanding on how current ecosystems were shaped, (b) why they are as they are, and (c) how environmental problems can be addressed in more holistic way. During class we will be increasingly focuses on urban systems. In this process our urban students will understand and appreciate "urban ecologies" better and will learn how to experience and to see their environment more actively. The "story" will start where we are now, in an urban landscape. In lectures, field trips and field exercises we will foster an enhanced understanding of our habitat better and we will review the methods used in urban ecology research. Only after that, can we backtrack in time and review how the urban landscape formed during deep history - before human appeared - and throughout human history. All this will be facilitated by engaging students in active student group projects related to urban ecology and on field trips that cover urban-extra urban gradients so typical for cosmopolitan New Jersey.

### Learning Objectives

- a. As much as human history teaches us about what we are (or could be), this account of the ecological history of our continent will foster an understanding of why we arrived at the current ecological condition.
- b. Students will understand that natural processes are active in human dominated landscapes as well and how urban environments are part of the natural history as well.
- c. Students will gain an awareness of how to read the current landscape and look for signs of the past that explain the present (and maybe the future).
- d. Students will appreciate how natural and human histories are connected.
- e. Students will understand how to address problematic human impacts and find ways of allowing natural processes to continue less impeded. As such they will see that science must play a central role in addressing problems of societal concern.

### Assessment and Grade Calculation:

|                                      |                |
|--------------------------------------|----------------|
| Field Trip protocols (3 trips)       | 10%            |
| Reading Questions                    | 10%            |
| Midterm and Final exam               | 40% (20% each) |
| Project (Presentations and Write up) | 40%            |

### Grading system

|          |    |
|----------|----|
| 90-100 % | A  |
| 85-89    | B+ |
| 77-84    | B  |
| 75-76 %  | C+ |
| 67-74    | C  |
| 60-66    | D  |

etc. (fractions are rounded e.g., 89.5=90, 89.4=89)

### Assignments:

1. "My home range" presentation
2. Questions for weekly readings
3. Field trip protocols (including Bioblitz report)

4. For 21:120:381 (Rutgers Newark Q1) Paper summarizing a specific topic related to class (e.g., natural and human history and future of a local town/city future). This monograph takes the form of an illustrated information poster to be delivered in written form by undergraduate students, with 2 stages of review: 1st and 2nd draft and final paper. The paper will be presented (10 minutes) in oral form by all students (with PowerPoint slides) to the class, 40 % of grade (undergraduates), 20% of grade (graduate students).

+ Graduate students taking the class per permission and for credits, will prepare an additional 30 minute lecture about a topic of their particular research interest in relation to the class topic. The lecture will be discussed with the instructor before inception and delivery (20% of grade).

Class attendance is mandatory (in person). A minimum level of participation is defined as being in attendance for the entire duration of a class session. It is the student's responsibility to be in attendance at all required classes and trips. All personal plans should be made in accordance with the class schedule.

Attendance and active participation in class is a fundamental part of learning. The interaction, discussion, and activities that take place during class will be critical to both the development of your design for this class, but also your development as a designer. Unexcused absences are not permitted. If you miss class for illness or an emergency, please provide a written explanation of this absence to the instructor, preferably before the class missed, but no more than a week after the absence. An absence is not an excuse for not being prepared for the next class.

### ***Accommodation and Support Statement***

Rutgers University-Newark (RU-N) is committed to the creation of an inclusive and safe learning environment for all students and the University as a whole. RU-N has identified the following resources to further its mission of access and support:

**For Individuals Experiencing Disability:** The Office of Disability Services (ODS) works with students with medical, physical, and/or mental conditions who encounter disabling barriers to determine reasonable and appropriate accommodations for access. Students who have completed the process with ODS and have approved accommodations are provided a Letter of Accommodation (LOA) specific to each course. To initiate accommodations for their course students must both provide the LOA and have a conversation with the course instructor about the accommodations. This should occur as early in the semester as possible. More information can be found at the RU-N ODS website ([ods.newark.rutgers.edu](http://ods.newark.rutgers.edu)). Contact ODS at (973) 353-5375 or via email at [ods@newark.rutgers.edu](mailto:ods@newark.rutgers.edu).

**For Individuals who are Pregnant:** The Office of Title IX and ADA Compliance is available to assist with any concerns or potential accommodations related to pregnancy. Students may contact the Office of Title IX and ADA Compliance at (973) 353-5063 or via email at [TitleIX@newark.rutgers.edu](mailto:TitleIX@newark.rutgers.edu).

**For Short-term Absence Verification:** The Office of the Dean of Students can help with absences related to religious observance, emergency or unavoidable conflict (illness, personal or family emergency, etc.).

Students should refer to University Policy 10.2.7 for information about expectations and responsibilities. The Office of the Dean of Students can be contacted by calling (973) 353-5063 or emailing [deanofstudents@newark.rutgers.edu](mailto:deanofstudents@newark.rutgers.edu).

For Individuals with temporary conditions/injuries: The Office of the Dean of Students can assist students who are experiencing a temporary condition or injury (broken or sprained limbs, concussions, recovery from surgery, etc.). Students experiencing a temporary condition or injury should submit a request using the following link:  
<https://temporaryconditions.rutgers.edu>.

For Gender or Sex-Based Discrimination or Harassment: The Office of Title IX and ADA Compliance can assist students who are experiencing any form of gender or sex-based discrimination or harassment, including sexual assault, sexual harassment, relationship violence, or stalking. Students can report an incident to the Office of Title IX and ADA Compliance by calling (973)353-1906 or emailing [TitleIX@newark.rutgers.edu](mailto:TitleIX@newark.rutgers.edu). Incidents may also be reported by using the following link: [tinyurl.com/RUNReportingForm](https://tinyurl.com/RUNReportingForm). For more information, students should refer to the University's Title IX Policy and Grievance Procedures located at <https://uec.rutgers.edu/wp-content/uploads/60-1-33-current-1.pdf>

For support related to Interpersonal Violence: The Office for Violence Prevention and Victim Assistance (VPVA) can provide any student with confidential support. VPVA is a confidential resource and does not have a reporting obligation to Title IX.

Students can contact the office by calling (973) 353-1918 or emailing [run.vpva@rutgers.edu](mailto:run.vpva@rutgers.edu). VPVA also maintains a confidential text-based helpline available to students; students can text (973) 339-0734 for support. Students do not need to be a victim/survivor of violence to receive assistance; any student can receive services, information, and support.

For Crisis and Concerns: The Campus Awareness Response and Education (CARE) Team works with students in crisis to develop a plan of support plan and address personal situations that might impact their academic performance. Connect with the CARE Team by using the following link: [tinyurl.com/RUNCARE](https://tinyurl.com/RUNCARE) or emailing [careteam@rutgers.edu](mailto:careteam@rutgers.edu).

For Psychological Support (Stress, Mood, Family Issues, Substance Use concerns and other personal challenges): The Rutgers University-Newark Counseling Center provides individual therapy and support groups for students dealing with psychological issues. To schedule an appointment, email [counseling@newark.rutgers.edu](mailto:counseling@newark.rutgers.edu) or call (973) 353-5805.

Additional support is available to any RU-N student through Uwill services:

- Umatch: Teletherapy with flexible scheduling, starting with a free account.
- Uhelp: Crisis support at 833-646-1526 (available 24/7/365).
- Urise: Wellness-based video collection with a free account.

Access Uwill@RUN at <https://my.rutgers.edu> using your netid. Services are confidential and free. For emergencies, call 911 or Rutgers University Police Department at (973) 353-5111

### **Departmental Grading Guidelines (for Landscape Architecture program New Brunswick Students 11:573:302):**

While the assignment of grades is ultimately the purview of the instructor, the department uses the following guideline for understanding appropriate grading in its courses:

A- Outstanding -This not only means fulfilling the requirements, but impressing and going beyond the initial expectations of the project. The student has demonstrated a superior grasp of the subject matter coupled with a high degree of creative or logical expression, and strong ability to present these ideas in an organized and analytical manner,

B- Very Good - The student has demonstrated a solid grasp of the material with an ability to organize and examine the material in an organized, critical, and constructive manner. The projects and in-class performance reveal a solid understanding of the issues and related theories or literature.

C- Acceptable -The student has shown a moderate ability to grasp concepts and theories for the class, producing work that, while basically adequate, is not in any way exceptional. This performance in class display a basic familiarity with the relevant literature and techniques.

D- Unacceptable - The work demonstrates a minimal understanding of the fundamental nature of the material or the assignment with a performance that does not adequately examine the course material critically or constructively. Students cannot graduate from the Landscape Architecture program with 2 D's in required SSO classes,

F- Failure - The student has demonstrated a lack of understanding or familiarity with course concepts and materials. Their performance has been inadequate. Failure is often the result of limited effort and poor attendance which may indicate that the student is not in the proper field of study.

### **Academic Integrity:**

The course has a zero tolerance policy for academic dishonesty, including plagiarism and cheating. Instances of dishonesty will be reported to Academic Integrity Officers to determine if further action is required. If you have any questions about what constitutes plagiarism or cheating, please ask your instructors or refer to the academic integrity websites for Rutgers and NJIT:

- ✓ <http://academicintegrity.rutgers.edu/academic-integrity-at-rutgers>
- ✓ <http://studentconduct.rutgers.edu/>
- ✓ <http://www.njit.edu/academics/integrity.php>

### **Attendance:**

Class attendance is Mandatory. A minimum level of participation is defined as being in attendance for the entire duration of a class session. It is the student's responsibility to be in attendance at all required classes and trips. All personal plans should be made in accordance with the class schedule.

Attendance and active participation in class is a fundamental part of learning. The interaction, discussion, and activities that take place during class will be critical to both the development of your design for this class, but also your development as a designer. Unexcused absences are not permitted. If you miss class for illness or an emergency, please provide a written explanation of this absence to the instructor, preferably before the class missed, but no more than a week after the absence. An absence is not an excuse for not being prepared for the next class.

[For New Brunswick students] The course requirements above are in addition to, and do not obviate any departmental requirements as are laid out in the departments Student Handbook, ([http://landarch.rutgers.edu/current\\_students/policies\\_st.html](http://landarch.rutgers.edu/current_students/policies_st.html)).

### **Work Becomes Department Property (for Landscape Architecture program):**

Submitted drawings, models, photographs, or written papers for any project assigned in the Department's courses are considered the property of the Department and may be retained in its archives for exhibition and accreditation purposes. All projects will be graded and returned to the student at a location designated by the instructor. Should your drawings be retained by the Department, you will be given the opportunity to obtain a print or photographic record of your work. Department files are OFF LIMITS to students.

**SCHEDULE AND COURSE OUTLINE:** Dates listed by week; lectures will meet once every week. Weekly dates of due dates for written projects are listed, but please note there will be additional smaller assignments throughout the semester. Due dates for these assignments will be regularly updated on the course [Canvas](#) site.

## 120: 381 Ecological History of North America

| WEEK                            | MEETING TOPIC   | NOTES/ACTIVITY ASSIGNMENTS/EXAMS                                      |
|---------------------------------|---|---|
| Week 1 – Sep7                   | <b>Intro:</b> The rule of human in nature, the role of nature for humans: Course Overview, “sense of place”   | Meet and greet: Where are you from?<br>Urban fieldtrip                |
| Week 2 – Sep14                  | <b>Urban Ecology:</b> where we are now: human dominated landscape and biota . <b>Intro to Campus Bioblitz</b> | <b>Student presentation: “My home range”</b>                          |
| Week 3 – Sep21                  | <b>Urban Ecology:</b> Stewardship for a natural future: Restoration and conservation in human landscapes      | <b>Biodiversity sampling on campus and in the city</b>                |
| Week 4- Sep28                   | <b>Urban Ecology:</b> fieldtrip   | Fieldtrip to Branch Brook Park (man-made nature and its fringe)       |
| Week 5- Oct5                    | Landscape Forensics   |   |
| Week 6- Oct12                   | Urban Ecology: fieldtrip  | Fieldtrip to Liberty State Park (urban nature and urban "non-nature") |
| Week 7- Oct19                   | <b>Pre-History:</b> fast backwards North America takes shape: Cretaceous to Ice Age                           | <b>Written summaries of 2 field trips due</b>                         |
| Week 8- Oct 26                  | <b>Midterm</b>  |   |
| Week 9- Nov2                    | <b>History:</b> Humans become a factor  | <b>Paper outline due</b>  |
|                                 | <b>½ Day Field Trip</b> on weekend: date TBA, Sat 4 or Sat Nov11  | Fieldtrip to Watchung Reservation                                     |
| Week 10- Nov9                   | <b>History:</b> Native Americans and Second Discovery (post 1491)   |   |
| Week 11- Nov16                  | <b>History:</b> Industrious overkill: the industrial revolution and post-industrial world today               | <b>Complete draft of Term Paper due</b>                               |
| Week 12 – Nov21 (change day=TH) | <b>No Class (to make up for field weekend trip)</b>   | <b>Watchung Field Trip report due</b>                                 |
| Nov 23                          | <b>Thanksgiving – no class</b>  |   |
| Week 13- Nov30                  | Project Colloquium  | <b>Student Presentations</b>  |
| Week 14- Dec7                   | The Future, the world without us?   | <b>Final Paper due</b>  |
| <b>FINAL EXAM: DEC 21</b>       |   |   |