



Course Syllabus/Fall 2017

Ecological History of North America

21:120:381, 11:573:302

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OFFICE/OFFICE HOURS:	RUN, Boyden 408/ TBA 80 Nelson Ave, 108 (NB)	COURSE WEBSITE:	Blackboard, TBA
COURSE LOCATION(S):	Boyden 421	MEETING TIME(S)	TU, 8:30-11:20AM

COURSE DESCRIPTION:

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 from such as paleontology, archaeology, historical and bio-geography to urban ecology and conservation biology. The topic will be approached using lectures, field trips, student facilitated discussion and paper presentation.

REQUIRED TEXT:

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

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 ecosystem 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 protocol review	10%
Midterm and Final exam	45%
Project (Group Presentations and Write up)	45%

Departmental Grading Guidelines:

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 punished by a zero on the assignment and consultation with the 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 takes 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.

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).

Work Becomes Department Property:

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 twice every week and recitation will meet every week, unless otherwise noted. Weekly dates of quizzes and 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 [Blackboard](#) site.

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SCHEDULE AND COURSE OUTLINE: Dates listed by week; class will meet once every week, unless otherwise noted. 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 [Blackboard](#) site.

WEEK	MEETING TOPIC	NOTES/ACTIVITY ASSIGNMENTS/EXAMS
Week 1 – Sep5	Intro: The rule of human in nature, the role of nature for humans: Course Overview, “sense of place”	Video Prehistoric NY, Meet and greet: Where are you from?
Week 2 – Sep22	Urban Ecology: where we are now: human dominated landscape and biota	Student presentation: “My home range”
Week 3 - Sep19	Urban Ecology: fieldtrip	Fieldtrip to Branchbrook Park (man-made nature and suburban gardens)
Week 4- Sep26	Methods: Ecological Forensics. also preparation for field project day	Biodiversity sampling on campus and in the city
Week 5- Oct3	Urban Ecology fieldtrip	Fieldtrip to Liberty State Park (urban nature and urban "non-nature")
Week 6- Oct10	Urban Ecology: Stewardship for a natural future: Restoration and conservation in human landscapes	Written summaries of field trips due
Week 7- Oct17	Pre -History: fast backwards North America takes shape: Cretaceous to Ice Age	Paper outline due
	Full Day Field Trip on weekend: date TBA, Sat Oct7 or Sat Oct 21	Field project: Watchung Ridge
Week 8- Oct24	History: Humans move in (end of the ice age) & Second discovery: from 1491 on	Midterm
Week 9- Oct31	History: Industrious overkill: the industrial revolution and after	
Week 10- Nov7	'History' of today and tomorrow: The "world without us/with us"?	Complete draft of Term Paper due
Week 11- Nov14	No Class (to make up for field week end trip)&	
Nov 21	Thanksgiving – no class	
Week 12- Nov28	Urban Ecology: Urban Future: Urban Ecology	
Week 13- Dec5	Project Colloquium	Student Presentations
Week 14-Dec12	Conclusion: Why is North America's ecology different? Frontiers forever, g Global comparison and a revision of our role on Earth	Final Paper due

DATE OF FINAL EXAM: DEC 15

