

ENVT 230 Ecology/Earth Science/Infrastructure, 3 units

Spring, 2024, George Leddy, PhD, instructor, George.Leddy@woodbury.edu

Office Hours online Fridays 11am – 12 noon and by appointment.

Woodbury University: [Sustainable Practices Course Requirements](#)

This first-year course has no pre-requisites and “meets” weekly on Friday mornings as synchronous and asynchronous. We will have the benefit of remote lectures and media, but will also have in-person field trips throughout the San Fernando Valley and the Los Angeles region.

This course invites students to consider and acknowledge the symbiotic relationship between the natural and built environments, and how our personal ecological footprint at the micro-level and infrastructure at the macro-level impact those environments. Course readings, movies, and field trips help students understand the delicate balance between our ecosystems and urban contexts, and the need for development to occur in more sustainable ways. Students explore responsible decision-making tactics and processes such as the use of “negative emissions” as a means of ecosystem restoration, and how to leverage our own agency and advocate for change.

Recommended text (e-book recommended): [Principles of Environmental Science 10th Edition](#), by [William Cunningham](#) (Author), [Mary Cunningham](#) (Author), [Catherine O'Reilly](#) (Author) eText ISBN. 9781266557781, 1266557784—USD54.00 180 days.

A **reserve copy** of the printed text will be put on reserve in the library.

Sustainable Practices (BA) Program Learning Outcomes

Sustainability

- Identify holistic ways of understanding sustainability problems, the concepts of sustainability, the issues involved, and the disciplines needed to address real- world problems.
- Apply ethical issues related to sustainability.

Technology

- Apply technology platforms that help assess the impact on the environment.
- Use analytic inquiry and interpretive applications when exploring innovative software (including open-source tools) in sustainability.

Policy: Evaluate sustainability policies among institutions for water, land, air, and urban management from the local to the global level.

Design Thinking, Systems Thinking and Innovation: Apply human- centered design principles when launching pilot initiatives that are designed as creative, adaptive solutions to sustainability challenges.

Research: Evaluate through research the role and effectiveness of a broad range of methods of inquiry and analysis.

Collaboration: Recognize and illustrate the importance of working collaboratively and in multidisciplinary teams.

Communication: Communicate effectively in written, verbal, and visual communications, taking into account media literacy (fact checking, disinformation, etc.).

Course Learning Outcomes (or Objectives).

- Establish important junctures between social and natural sciences where complex environmental problems and proposed, or existing solutions can be examined critically.
- Engage with provided learning materials (articles, reports, videos, podcasts, etc.) to establish an overall framework to better understand key aspects of global, regional, and local environmental challenges.
- Conduct individual and group research on a range of topics from the global to the local that utilizes different approaches to best present a comprehensive view that is interdisciplinary and ideally bridges natural science with social science, such as environmental policy and water conservation in California.
- Evaluate effective regulatory policy related to solving environmental problems from the global to the local.
- Contribute to frequent discussion in Moodle on the subject of the week with a focus or view toward the urban environment.
- Participate in a group presentation on the topic chosen by the group or groups (depends on number of students enrolled).

Students will upload assignments and group projects to Moodle. Short discussion points will require students to respond to new events online.

This synchronous/asynchronous course allows us to visit lecture material remotely at any time as well as both synchronous and asynchronous for discussions. These are either live remote or in Moodle.

Assignments, grades and exams will be in Moodle.

The breakdown of grade total is as follows:

- Moodle discussion and text replies to discussions 35 points
- Group project (research and presentation) 10 points
- Attendance and field trips 15 points
- Individual project and presentation 20 points
- Exams 20 points

Passing grades or C begin at 55 points, B at 75 points, A above 85 points.

Points are allocated according to quality of written and oral expression, participation in class activity such as field trips, depth and argumentation in discussions and exam questions, quality of research, informed opinion, quality of presentation (text, images, videos), timely submission of requested materials (barring good reasons for late work)

We will follow **Woodbury policies** regarding academic honesty,

Accommodation:

Woodbury University is committed to making reasonable accommodations to assist students with disabilities in reaching their full academic potential. To that end, your instructor will comply with official requests for accommodations. Please follow the instructions found on this [Accommodations and Documentation](#) page so that your instructor will be provided the appropriate instructions for your accommodations.

Correspondence rules (email):

Due to confidentiality and FERPA requirements all faculty, staff and students, when corresponding through email, must use their university provided Woodbury.edu email accounts. Students are encouraged to check this email address regularly as it is the only email address in which they will receive official course or university information.

Privacy: In case a recording includes students:

This class is being conducted over MS Teams/Ring Central and Moodle. As the host, the instructor may be recording the sessions. The recording feature for others is disabled so that no one else will be able to record the sessions. No recording by other means is permitted. The sessions will be posted on the Moodle class website unless otherwise notified. In case of privacy concerns and individual students wanting not to appear in the recording, the student must contact the Office of Student Affairs and apply for an exemption. Students must complete an Accommodations Request Form, which can be downloaded from <http://go.woodbury.edu>, and found under "Academic Resources." Accommodations cannot be granted prior to the instructor's receipt of a Notification of Academic Accommodation Plan (NAAP) from the Disabilities Coordinator. Accommodations are never provided retroactively. If the student prefers to use a pseudonym instead of the real name, please let the instructor know what name will be used so that the instructor knows who you the student is during the session.

Web Cam Usage.

To ensure the optimal learning and engagement happens during online course sessions, students are asked to keep their video cameras on during such class meetings, and mute themselves unless they need to speak or present. This approach is congruent with in-class participation where students are visible to one another and the instructor. If a student has a compelling reason to keep his or her camera off during a class session, (s)he should contact the instructor about this prior to the course meeting.

Components for an Online Course:

- Tech Specifications: You will need a computer (PC or Apple or Linux desktop or laptop, but not a tablet) with access to Moodle, Microsoft Teams, and a good internet connection that provides sufficient bandwidth for streaming videos, PowerPoint or Apple Keynote (or equivalent), webcam, microphone and standard web browser and word processing as well as PDF reading applications.
- Technical support contact information: helpdesk@woodbury.edu
- Proctorio will be used sparingly (midterm and final exam),
- Time commitment includes 4 hours per week with content including lectures, and 1 to 2 hours per week on assignments and field trips.
- When not speaking, please turn off mics to reduce background noise. When live, we will use chat and raised hands.
- Field trips will be scheduled for Saturdays and will require as much as 3 hours.

Course Organization

- This is an asynchronous, online course. You cannot complete this class on your own schedule unless we have an agreement with Student Disability Services. There are required due dates every week.
- **MONDAYS:** The course is organized around weekly sessions **starting on Monday of each week, ending with the Friday AM class slot.** On Monday you should log into the course, read the week's announcements, and check your email for updates. So, we are obligated to begin our topic area material before our scheduled class time.
- **THURSDAYS:**
 - Please complete the readings and other supplementary material by Thursday of each week.
 - Discussion responses and other assignments are due on Thursdays (by midnight).
- I read and make follow up comments on discuss posts and other assignments on Thursday.
- **FRIDAYS:** Most posts require a follow up response. This response is due by Thursday of each week.

Attendance and Open Door Policy

I understand that we all face challenges in completing work and that unexpected events, mental and physical health, and other hardships can impact the student experience. **I encourage you to stay in communication with me, I'm here to support you.** If you feel yourself falling behind, please reach out, we can figure out a plan together.

Attendance is based on participation in weekly discussion sessions or other assignments. I record attendance on Friday afternoon—if you did not submit a discussion post or other assignment on Thursday, I will mark you absent in Starfish. NOTE: you can still complete the discussion for that week and receive reduced credit toward the discussion grade.

Three unexcused absences = risk of failing the class. Some extenuating circumstances may include:

- An extended illness requiring hospitalization or visit to a physician (with documentation)
- A family emergency, e.g. serious illness (with written explanation)
- Undue hardship due to Covid-19
- An accommodation communicated with me and coordinated with Student Disability Services
- Observance of a religious holiday

The attendance and lateness policies are enforced as of the first day of classes for all registered students. If registered during the first week of the add/drop period, the student is responsible for any missed assignments and coursework. Students failing a course due to attendance should consult with an academic advisor to discuss options. Divisional and/or departmental/program policies serve as minimal guidelines, but policies may contain additional elements determined by the faculty member.

I commit to grading in a timely manner and regularly updating the gradebook on our course Moodle page, so you are aware of your class standing. Please reach out if you have a question about your grades.

Safe Online Space

I consider our discussion forums “safe spaces” for students to explore ideas—we should all feel comfortable communicating our thoughts, perspectives, and experiences. To that end, I invite us to conduct ourselves professionally in the online environment. Please come to discussion with the course material prepared and with the expectation and commitment to learn and to participate. All language and interactions between students and the professor should be respectful and courteous with the end goal of achieving an open and positive learning environment. All postings and discussions should reflect respect, including respect for difference.

If students’ behavior is confrontational or threatening (in writing or synchronous meetings), I may need to ask the student to leave the discussion forum. Similarly, if at any time you find my class engagement problematic, please reach out to me! My door is always open.

If you have concerns related to the environment or tone of our discussions at any point during the semester, please let me know by email so we can arrange a time to discuss this and figure out best steps.

Commitment to an Inclusive and Respectful Learning Environment

In this course, we operate under the assumption that diverse knowledges and knowledge creation are needed to understand the food system and to collectively develop strategies for justice. This assumption articulates in a number of ways in this course, including:

- as discussed in the “safe online space” policy above;
- through support for different abilities, health requirements, and religious observations as discussed in the “attendance and open-door policy” above;
- through a course emphasis on critical pedagogy, a co-learning approach to knowledge creation, and recognition of experience and research-based knowledge as central to societal understanding;
- through readings and multimedia course materials that emphasize scholarship, knowledge creation, and strategies created by diverse thinkers and actors, including Black and/or Indigenous scholars, too often excluded from course syllabi or literature reviews in the fields of food systems and environmental studies;
- through the co-creation of safe space agreements at the beginning of the semester.

- Moodle discussion and text replies to discussions 35 points
- Group project (research and presentation) 10 points
- Attendance and field trips 15 points
- Individual project and presentation 20 points
- Exams 20 points (10 points each)

1. Participation

As a distance-learning course, class participation is particularly important for ensuring a successful and enjoyable semester. I consider the following when calculating your participation grade:

- Weekly discussion sessions. This is the heart of the class—if you don't contribute to these weekly assignments, it is the same as not showing up for class.
- Timely completion of the readings.
- Timely completion of all assignments.
- Active participation in any group assignments (i.e. communicating with and contributing to group work).
- Check and respond to email three times a week.
- Field trips in the region.

2. First week assignments

Your orientation to the class is facilitated via a series of “first week assignments,” a series of short tasks due the first week of class. Most of these tasks shouldn't take too long but they are essential to setting the groundwork for the rest of the term. In this first week, please complete the following tasks:

- If you haven't taken an online class before, please participate in the New School Distance Learning Online Orientation.
- Familiarize yourself with the course site.
- Read the syllabus and mark important dates.
- Introduce yourself in the “introductions” section of discussion.
- Respond to the “welcome” email. This email will ensure that we are in contact via your email address registered on Canvas. This is the only way you will receive emailed information from me, so it's important that you check this address a few times a week. Responding “yes” is our contract that you will check and respond to email.

3. Discussion Responses

Since discussion is the only place we meet in an asynchronous environment, emphasis is placed on contributions to online discussion sessions. Most weeks you are asked to contribute at least two thoughtful responses to the week's reading and presentation discussion questions. I'll follow up your posts with some additional discussion prompts and comments to help answer your questions and push the discussion deeper. Everyone is encouraged to comment on each other's posts and take part in the online conversation.

Your first post is due Thursday by midnight of the second week. **Discussion posts not submitted by Thursday of each week count as an absence in the class for that week.** NOTE: If you miss a Thursday deadline, I encourage you to make up that post. While you will be marked absent from class, you can still receive credit toward your discussion grade. More than 3 absences (i.e. missing the Thursday deadline more than 3 times) and you can fail the class.

The rhythm of a typical week:

Monday: I post discussion questions for the week. Students complete course material for the week (i.e. reading, films, etc.).

Tuesday: Students continue to complete course material for the week (i.e. reading, films, etc.).

Wednesday: prepare discussion texts, edit, etc..

Wednesday/Thursday: I read the posts and reply.

Friday: lecture content and comments

Lecture Content:

While the course lectures are designed around major environmental problems, we will examine the current and future solutions to our major challenges, the climate crisis, and the need to address: (not in any order)

- Overexploitation of living resources
- Wildlands conservation and restoration
- Water conservation
- Alternatives in basic infrastructure and energy sources.
- Greenhouse gas emission reduction in buildings, transportation, and electricity generation
- Toxics in the home and workplace
- Food and agriculture from global to local
- The peril and promise of the built environment.
- New materials and methods in home building: sustainability as a goal.
- The urban waste challenge: landfills, and wastewater treatment
- Environmental policy and governmental regulation

In every case we will include an analysis that takes into account geographic differences, demographic aspects of uneven impacts, and environmental justice.

Discussions will ask you to root the issues we discuss in the context of the built environment. This will often be Los Angeles, but need not be restricted to LA. In this way, we dedicate part of every topic unit to discussions on what it means for us here. For example, in dealing with biodiversity, we might discuss green space, suburban sprawl, parks, wilderness in and around LA as these affect communities of plants and animals in the micro-climatic zones of Southern California. The same approach is used when it comes to water, climate impacts, local food, waste, etc. In the section called perils and promise of the built environment, we will try to bring all these together. "Brownfields" will also get attention, as much desired changes in the future planning of the urban space in LA is constrained by formerly industrial properties now requiring cleanup.

We will also pay attention to changes in urban development policy from the 20th century suburbs to today's new urbanism. This will allow us to see how changes in design and build can help us adapt to climate challenges as well as social challenges such as the large unhoused population in LA County. Here we want to consider changes in building materials and the dominant paradigm for home building.

Weekly class topics and assignments: (subject to change when need be)
Field trips are tentative depending on availability of the host location.
This section will be edited in the next two weeks.

Dates by week Lecture Day	Readings: textbook: Principles of Environmental Science , Cunningham & Cunningham, 10nth ed., McGraw Hill, Supplemental readings are posted in Moodle or online articles. Important videos are in Moodle.	Assignments exams
Jan 16- Jan 19	Ch 1: <i>Understanding Our Environment</i> What is Environmental Science? The Nature Of Science How to examine urban ecology using environmental science and an analysis of the spatial dimensions and constraints for infrastructure and adaptation to change	See Moodle readings and the PDF for chapter One. First class is “live remote” to get to know each other.
Jan 22- Jan 26	Ch 3: <i>Evolution, biodiversity and population ecology</i> Species Interaction and Community Ecology, Ecological communities Levels of Ecological Organization.	Online Discussion on biological and ecological dimensions of earth science.
Jan 29- Feb 2	Ch 5 <i>Biomes and Biodiversity</i> Ch 6: <i>Environmental Conservation, Forests, Parks, and Nature Preserves</i> Ecological zones and land use globally and in the US, California. Protected areas and biodiversity	Discussion on alternative building materials
Feb 5- Feb 9	Ch 4 <i>Human Population Growth</i>: Eight billion, growing or declining? Demography. Population and Society, the Malthus problem in the real world The problem of the geriatric society. Aging and shrinking populations and the role of immigration in avoiding the Japan problem	Discussion continues on alternative building materials
Feb 12- Feb 16	Ch 7: <i>Food and Agriculture: the case of California</i> <i>Agriculture, San Joaquin Valley, “water and growers”, crop choices, groundwater extraction</i> Agro-ecology and alternatives to industrial food production, organic farming and scale, commodity trade and vs food sovereignty	Field Trip: TreePeople (Friday am or Saturday) the urban forest, Discussion
Feb 19- Feb 23	Ch 8: <i>Environmental Health and Toxicology</i> Toxics and Toxicity	Field trip Pacoima Beautiful toxics tour, Discussion: Toxic sites, “brownfields” and “remediation”, the LA case.

Feb 26- Mar 1	Ch 9: <i>Climate Crisis</i>	Discussion: adapting the built environment (“resilience”) the goal of “net-zero at the building level.
Mar 4- Mar 8	Climate Crisis continued: regional impacts	Midterm Exam online
Mar 11- Mar 15	no class Spring Break	
Mar 18- Mar 22	Ch 10: <i>Air Pollution</i>	Group research presentation on trends and policy choices on climate from global to local
Mar 25- Mar 29	<u>no class Friday</u> Woodbury University Enrichment Days	Prepare individual presentations, research and additional materials
Apr 1- Apr 5	Ch 11: <i>Water: Resources and Pollution</i>	Field Trip Tilden wastewater treatment plant (?) or SMRFF (Santa Monica?)
Apr 8- Apr 12	Ch 11: <i>Water</i>, continued: <i>Los Angeles</i>	Discussion California water, challenges to LA and SoCal.
Apr 15- Apr 19	Ch 13: <i>Energy—transportation and household/business consumption</i>	Discussion: a greener LA? 1) Transportation, 2) Energy, PV solar, wind, etc. rooftop, “off grid”?
Apr 22- Apr 26	Ch 15: <i>Economics and Urbanization</i>	Discussion: Can LA be transformed? Alternatives in housing, building materials and codes, help or hindrance?
Apr 29= May 3	Ch 14: <i>Solid and Hazardous Waste, MSW, landfills, recycling,</i>	Field Trip (?) Sunshine Cyn. or a MRF in SFV
May 6- May 10	Ch 16: <i>Environmental Policy and Sustainability</i>	Final Exam online

Discussions: These involve selecting from posted readings in Moodle and using these to shape a short set of points that both summarize and critique. All are online in Moodle and are evaluated according to the criteria above.

Field Trips: These are planned and not firm yet but involve 3-4 hours on Fridays or Saturdays.

Projects:

There is only one **group project** on the climate crisis, its causes and best set of solutions. There is only one and requires an in-person meeting on campus or an online forum where the group discusses in TV News format.

Individual projects are uploaded as PPT or equivalent and combine the visual content with the narration. They can be recorded and posted as a video with the screen presenting the content. If needed the instructor can meet online (Zoom) with the student and record the presentation for Moodle upload via Zoom link.

Midterm and Final Exams are done online and are relatively short with a series of discussion points to be addressed in Moodle in text boxes or uploaded PDF files.

- Moodle discussion and text replies to discussions 35 points
- Group project (research and presentation) 10 points
- Attendance and field trips 15 points
- Individual project and presentation 20 points
- Exams 20 points, (10 points each)