

Nature Journaling: Discovering Biodiversity and Nature in Everyday Life

SYLLABUS

BASIC INFORMATION

Course Number: 11:374:210 (Human Ecology)/ 11:216:210 (Ecology, Evolution, & Natural Resources) [cross-listed]

Prerequisites: None. Open to all Rutgers undergraduate students.

Meeting times: See Rutgers course schedule

Instructors:

Dr. Mary Nucci, 214 Cook Office Building, Cook Campus, Rutgers University, office phone: 908-963-9842. Office Hours: By appointment.

Email: mnucci@sebs.rutgers.edu

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Email: lena.struwe@rutgers.edu

Note, this syllabus is not written in stone. It will be modified if/when necessary, and the most updated information can always be found on the course website. It is each student's responsibility to stay well-informed about class deadlines, readings, policies, and assignments.

COURSE WEBSITE, RESOURCES AND MATERIALS:

All course materials and information will be available on the course Canvas website (<https://canvas.rutgers.edu/>). The zoom link to the online class is on the course website.

Student requirements: Computer with internet access, webcam, microphone and speakers. There is no textbook. Students will be provided with a journal. Students will need pencil, eraser, and ballpoint pens. Optional supplies are markers, colored pencils, watercolors, ink sketchpens, etc.

COURSE DESCRIPTION

Short (catalog description)

Students will explore, learn about and understand everyday biodiversity, environment, and organisms' structure through lectures, discussions, and hands-on nature journaling, developing creative, written, visual, and quantitative ways to communicate facts and observations.

Long (syllabus description)

The study of life on earth and its biodiversity presents complex, integrated issues and knowledge that spans many disciplines. This intro level class for majors from any curriculum focuses on

how to explore, learn to see, describe, and identify, and gain understanding of living organisms and nature present in our everyday lives. We will utilize nature journaling methods (including visual, written, and quantitative data gathering) outdoors and indoors, hands-on exploratory methods, lectures, and readings to provide students with both the fundamentals of natural sciences, its biodiversity, conservation, and structure and function; and a basic understanding of how to communicate science. All students will explore creative representation of biodiversity, both through their own nature journals using both visual, written, and quantitative expression forms, through art and design through history, and its connection to wild living organisms.

LEARNING GOALS

Undergraduate Major Program Learning Goals

1. Describe the evolutionary origins, processes and patterns over geologic time. (EENR)
2. Communicate effectively orally and through written text and graphics (EENR).
3. Acquire the skills to use appropriate conceptual and methodological tools to structure inquiries about human-environment interactions (Human Ecology).

Additional Course-specific Learning Goals

1. Demonstrate and learn through illustration, writing and numeracy the value of observation in formulating and answering questions.
2. Discover and learn through visual and written communications about the biodiversity of everyday life, the interrelationships between humans and other living species, and the natural and manmade places we inhabit together.
3. Describe and demonstrate through visual and written communications the interrelationship and interactions of the humanities, social sciences, and life and physical sciences in long- and short-term time spans.
4. Demonstrate ability to express and synthesize observational, written, qualitative, and quantitative data.
5. Master organization of data and personal observations through development of note-taking, sketching, writing, and presentation skills.

ASSIGNMENTS, GRADING, & ASSESSMENT

Achievement of the learning goals and participation and performance on assignments will be assessed through the evaluation and grading of the following components:

Assignment	Points and due dates
Nature Journaling Assignments (independent outdoor work)	120 (10 pts/assignment; 12 total, due on Sunday nights)
Nature Journaling Peer Responses (post journal pages and responses in group discussion)	48 (4 pts/week; 12 total, due Tuesday nights)
Reading Responses (to do before class)	26 (2 pts/week; 13 total, due Tuesday nights)
Lecture Questions and Discussion (posted during/after class)	28 (2 pts/week; 14 total, due Wednesday nights, may be done during Wednesday class)

iNaturalist Species Project	10 (1 project/semester, due Nov 1)
Attendance	28 (2 pts/week; 14 weeks, affected by full and partial absence)
Capstone Project, to highlight mastering of skills (redo one assignment based on learning and peer and instructor feedback, submit a new visual Journaling Page, an Essay explaining your visual page in words, and a Personal Statement describing your personal learning experiences and processes and how/if what you have learned will be useful for your future career).	30 (journal page 15 pts, essay 10 pts, personal statement 5 pts; due first day of final exams)
Total	300 pts (approx.)

Delayed and late hand-in of assignments will get a lowered or zero grade. Made-up assignments will be graded as normal assignments. Final grades are based on grade achieved overall, with no curving or weighting of grades, and grades tracked in Canvas throughout the semester.

Grades are assigned as follows:

- A 90-100%
- B+ 85-89.9 %
- B 80-84.9 %
- C+ 75-79.9 %
- D 60-69.9 %
- F less than 60%

The instructors reserve the right to elevate grades for students that have shown remarkable improvement throughout the semester in their participation and learning (but please do not e-mail us and ask for a higher final grade, it does not work).

Final exam

There is no final exam for this course. The Capstone project is due on the first final exam date.

ABSENCE POLICY (Including medical)

If you are absent due to illness or other reasons, you have to report it to the online student absence system (<https://sims.rutgers.edu/ssra/>), which will keep track of your number of absences in class. Absences must be reported as soon as possible (preferably within 2 days, at least within one week).

Medical absences are automatically excused absences. If you do not report a medical absence through the Rutgers system you will not get permission to make up the work. Other reasons for absences are assessed on a case by case basis to determine if it is an excused absence or not. Unexcused absences will result in no possibility to make up missed work (zero points).

Make-up work is only available for excused absences. Requests for makeup work has to be made via e-mail no later than 5 business days after your return to class, are decided on a case-by-case basis, and make-up work has to be finished within 5 business days after being handed out to the student. If you have extensive medical or other emergency absences, we ask you to contact the Dean of Students to provide us with a letter confirming your need for make-up work and other special considerations.

If you know in advance that you are going to be absent from class, you need to find out if your absence will be excused by e-mailing all instructors, provide reason with documentation, and do this at least 5 business days before your planned absence. Permission for make-up work will be handled on a case by case bases, and generally only be approved for personal emergencies, research presentations, job interviews, etc.).

ZOOM PROTOCOL AND POLICY

Although we are all pretty familiar with Zoom from the last year and a half, we wanted to remind you of protocol for this class:

1. Cameras must be on at the beginning of class and during the times you are presenting.
2. You should stay muted during class.
3. Please do not take screenshots of the class.
4. Chat and video are recorded, so do not use the chat to have private discussions unless you want it to potentially be seen by others. The class videos will only be shared upon request.
5. Pets allowed. Food allowed. Clothing required.

COURSE SCHEDULE AND TOPICS (tentative, might be adjusted)

Week 1	INTRODUCTION: What is nature journaling, why do it, how to do it? What if I 'can't draw' or write neatly by hand?
Week 2	BIODIVERSITY AND SPECIES: What is biodiversity and where is it? How do I find it and see it? How do I know what species it is and how do I use iNaturalist?
Week 3	ON A SMALLER OR BIGGER SCALE: Species illustrations and descriptions, how do I deconstruct an organism and its parts? How do I zoom in on details, or zoom out to the big picture? How do I measure scientifically?
Week 4	SMALL AND BIG NUMBERS AND CHANGES: How to understand and present time and seasons in nature in long and short time frames. How to report weather, climate, movement of and changes in living and non-living things. What are seasons, phenology, life spans, migration and life cycles? What is the human impact?
Week 5	GEOGRAPHY AND TERRAIN IN 2D and 3D: How to do simple mapping, elevations, transects, perspectives, and other ways to create dimension and descriptions of space. How to mark a spot using GPS and latitude and longitude and know where you are.

Week 6	THE UNDERWORLD and EARTH'S BUILDING BLOCKS: The dead world we walk and build on and its fossils, sediments and bedrock. How have life evolved, species been lost or survived, what has happened and will happen to Earth? What are the elements, minerals, rocks, that form the crust we live on? How to see geology and its processes in the landscape.
Week 7	NATURAL HISTORY MUSEUMS: Scientific collections from discovers, explorations and inventories, where are they, who collected them, and why? What stories and data about the past and future are hidden in these preserved specimens? How to preserve something I find for the future (and not just in a photo or drawing).
Week 8	MODULARITY AND STRUCTURE: How and why are animals so differently constructed from plants? Why are some radial, others bilateral in their symmetry, and why are we segmented? How can plants stand up, and how do animals run and fly? How humans use the fibers of organisms to create useful and beautiful things, from roofs to baskets to mittens.
Week 9	LANDS AND LANDSCAPES: The ideas of wilderness and romance, fear and exploration of unknown places - big and small. A brief history of human relationships to lands, migration of humans and other species, colonization, and dominance and extinction. Who owns land and how are wild species seen and valued by the people who live there? Which landscape is 'home' and 'yours' to you?
Week 10	THE LEFTOVERS OF THE ANTHROPOCENE: All the human-made materials in the natural world, from roads, to buildings, plastics, and new chemicals and more. The living things in the asphalt jungles - the urban environment. The influence of globalization on local biodiversity and environments. Does nature still exist in its wild form?
Week 11	NOT HOME ALONE: All the living and post-living organisms in our houses and apartments, from edible biodiversity, pets and uninvited pests, and potted plants. The botany, microbiology, and zoology in the kitchen, basements, and backyards.
Week 12	HUMAN HEALTH AND NATURE: Biodiversity as a source of wellbeing and illness, from physical to mental impacts. Horticultural therapy and hiking, medication, and nature journaling. Foraging and medicinal plants, diseases spread through other animals to us, and venomous and toxic organisms near you.
Week 13	PSYCHOLOGY OF NATURE: How do we feel and think about nature, what do we love and hate, how does it symbolize life and death? Why are some species charismatic and others not? Why do so many suffer from Plant Awareness Disorder? How is this reflected in our everyday life, gardens, parks, pets, and zoos? Are road killed animals interesting, horrific, or disgusting?
Week 14	SYNTHESIS: Bringing it all together in a capstone project, integration of quantitative and qualitative observation data in visual arts and written essay. Personal development and learning through nature journaling.

ACADEMIC INTEGRITY

The university's policy on Academic Integrity is mandatory and available at <http://academicintegrity.rutgers.edu/academic-integrity-policy>. All students should familiarize themselves with the policy and we highly recommend that you utilize the learning resources on this website to understand plagiarism, paraphrasing, correct and incorrect citation of sources, cheating, etc. The principles of academic integrity require that a student:

- properly acknowledge and cite all use of the ideas, results, or words of others.
- properly acknowledge all contributors to a given piece of work.
- make sure that all work submitted as his or her own in a course or other academic activity is produced without the aid of impermissible materials or impermissible collaboration.
- obtain all data or results by ethical means and report them accurately without suppressing any results inconsistent with his or her interpretation or conclusions.
- treat all other students in an ethical manner, respecting their integrity and right to pursue their educational goals without interference. This requires that a student neither facilitate academic dishonesty by others nor obstruct their academic progress.
- uphold the canons of the ethical or professional code of the profession for which he or she is preparing.

Adherence to these principles is necessary in order to ensure that

- Everyone is given proper credit for his or her ideas, words, results, and other scholarly accomplishments.
- all student work is fairly evaluated and no student has an inappropriate advantage over others.
- the academic and ethical development of all students is fostered.
- the reputation of the University for integrity in its teaching, research, and scholarship is maintained and enhanced.

Failure to uphold these principles of academic integrity threatens both the reputation of the University and the value of the degrees awarded to its students. Every member of the University community therefore bears a responsibility for ensuring that the highest standards of academic integrity are upheld.

All instances of plagiarism or other unacceptable academic conduct will be reported to the Office of Student Conduct or the Graduate School and might result in a warning, a mark on your permanent record, dismissal or suspension according to Rutgers official rules. In short, to avoid plagiarism or paraphrasing in submitted work, observe, write and draw everything by yourself, and never copy text or images from the internet or publications or other students – we are using turnitin.com to check all text handed in by students.

All work in this class is independent unless assigned as group work by the instructors. In written text, remember to cite any and all sources of information unless it is your own observations. When you include a list of references follow a complete citation format (include author, year, title, journal, book, page numbers, etc.; see instructions on course website for various referencing styles). Non-refereed, unscientific web sites are not original, peer-reviewed sources of scientific information.

Cite all image sources properly. If images are not your own (source/photographer and copyright information; an url is not a source or copyright information, see website for further information). If you took the photograph or made digital art, list yourself (and potential collaborators) as the source and copyright holder. For Nature Journaling pages and drawings, please sign each physical page with your name or signature before photographing and submitting it as class work.

ACCOMMODATIONS FOR STUDENTS WITH DISABILITIES

Rutgers University welcomes students with disabilities into all of the University's educational programs. In order to receive consideration for reasonable accommodations, a student with a disability must contact the appropriate disability services office at the campus where you are officially enrolled, participate in an intake interview, and provide documentation:

<https://ods.rutgers.edu/students/documentation-guidelines>. If the documentation supports your request for reasonable accommodations, your campus's disability services office will provide you with a Letter of Accommodations. To begin this process, please complete the Registration form on the ODS web site at: <https://ods.rutgers.edu/students/registration-form>. If you already have disability accommodations for quizzes and assignments, etc., let us know by forwarding your accommodation letter to the instructors of the class. Contact information: Rutgers Disability Services: (848) 445-6800 / Lucy Stone Hall, Suite A145, Livingston Campus, 54 Joyce Kilmer Avenue, Piscataway, NJ 08854 / <https://ods.rutgers.edu/>

BASIC NEEDS RESOURCES

Any student who has difficulty affording groceries or accessing sufficient food, or who lacks a safe and stable place to live, is urged to contact the Rutgers Student Food Pantry and/or the Dean of Students (contacts below). Furthermore, please notify the professor if you are comfortable doing so, as they may be able to provide additional support.

Rutgers Student Food Pantry

<http://ruoffcampus.rutgers.edu/food/> (Links to an external site.)

848-932-5500

College Ave Student Center, Room 115 (126 College Ave). Check their website for hours and additional locations.

The Rutgers Student Food Pantry is dedicated to helping all Rutgers students in need of food, no questions asked. Students will be provided with groceries that typically last about one week.

Dean of Students Office

<http://deanofstudents.rutgers.edu/> (Links to an external site.)

848-932-2300

88 College Avenue, New Brunswick, NJ 08901

Mon-Fri, 8:30am-5:00pm

The Dean of Students Office at Rutgers University-New Brunswick provides solutions, services, and support to help students navigate Rutgers University. The Office serves as a student support network by providing advocacy, problem resolution, and critical incident intervention for those times when additional assistance is needed. Please call to schedule an appointment to meet with a representative from the Dean's office. [Just In Case Web App \(Links to an external site.\)](#) <http://codu.co/cee05e> (Links to an external site.)

STUDENT WELLNESS SERVICES

Just In Case Web App <http://codu.co/cee05e>

Access helpful mental health information and resources for yourself or a friend in a mental health crisis on your smartphone or tablet and easily contact CAPS or RUPD.

Counseling, ADAP & Psychiatric Services (CAPS)

(848) 932-7884 / 17 Senior Street, New Brunswick, NJ 08901 / www.rhscaps.rutgers.edu/

CAPS is a University mental health support service that includes counseling, alcohol and other drug assistance, and psychiatric services staffed by a team of professionals within Rutgers Health services to support students' efforts to succeed at Rutgers University. CAPS offers a variety of services that include: individual therapy, group therapy and workshops, crisis intervention, referral to specialists in the community and consultation and collaboration with campus partners.

Violence Prevention & Victim Assistance (VPVA)

(848) 932-1181 / 3 Bartlett Street, New Brunswick, NJ 08901 / www.vpva.rutgers.edu/

The Office for Violence Prevention and Victim Assistance provides confidential crisis intervention, counseling and advocacy for victims of sexual and relationship violence and stalking to students, staff and faculty. To reach staff during office hours when the university is open or to reach an advocate after hours, call 848-932-1181.

Scarlet Listeners

(732) 247-5555 / <https://rutgers.campuslabs.com/engage/organization/scarletlisteners>

Free and confidential peer counseling and referral hotline, providing a comforting and supportive safe space.

Food Insecurity

Any student who has difficulty affording groceries or accessing sufficient food to eat every day, or who lacks a safe and stable place to live, and believes this may affect their performance in the course, is urged to contact the Dean of Students for support. Furthermore, please notify the professor if you are comfortable in doing so. To reach the Rutgers Student Food Pantry please call 848-932-5500. A 2018 survey found that 1/3 of all students at Rutgers have experienced food insecurity at some point during the semester. You are not alone and we are here to help.

STATEMENT OF DIVERSITY AND INCLUSION

It is our intention that students of all backgrounds will be well served by this course. We will work to create an environment of inclusion that respects and affirms the inherent dignity, value, and uniqueness of all individuals, communities, and perspectives. We are lucky to have a diverse university. Diverse voices and life experiences enhance the learning process and we welcome students to share their personal experiences. We will not tolerate disrespectful language or behavior against any individual or group. If you feel as though you have been disrespected or treated unfairly by the instructors or any other individual, please let us know. You may speak with the instructors in person, over email or report anonymously using the feedback note box. You may also report bias to the Rutgers Diversity and Inclusion initiative using this link: <http://inclusion.rutgers.edu/report-bias-incident/>

LAND ACKNOWLEDGMENT

We acknowledge that we will be conducting class and do fieldwork on the traditional homelands of the Lenape people. Why do we recognize the land? “To recognize the land is an expression of gratitude and appreciation to those whose territory you reside on, and a way of honoring the indigenous people who have been living and working on the land from time immemorial. It is important to understand the long-standing history that has brought you to reside on the land, and to seek to understand your place within that history. Land acknowledgements do not exist in a past tense, or historical context: colonialism is a current ongoing process, and we need to build our mindfulness of our present participation. It is also worth noting that acknowledging the land is indigenous protocol.” (sourced from <http://www.lspirg.org/knowtheland/>)