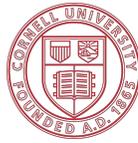


Nature Education

Online Course Syllabus 2019



Cornell University

Course instructor: Alex Kudryavtsev (<http://alexruss.org>), Cornell University Civic Ecology Lab.

Overview: Nature experiences can be educational, joyful, and comforting, especially in today's busy and urbanizing world. Nature education is a subfield of environmental education, whose goal is to bring people closer to nature and thus contribute to human well-being, including physical and mental health. This course will introduce you to diverse nature education practices, including programs run by urban and wilderness nature centers, unstructured play time for children, adventure and outdoor education programs, educational experiences in national parks, forest schools, as well as citizen science and environmental stewardship that incorporate nature-based experiences that benefit individuals. Topics include personal and community benefits of nature education, using and improving cultural ecosystem services, traditional approaches to nature experiences, and challenges and critique of nature education. Based on research and practice examples, this course is designed to help educators, volunteers, community leaders, parents and anyone else to gain professional credentials in nature education, and to incorporate nature in their educational programs and everyday life.

Participants. Current and aspiring environmental educators, teachers, nonformal educators, volunteers, nature enthusiasts, university students – and anyone interested to use nature education in their work, life, research, and training other educators. No background in nature education or environmental education is required. Available to participants in any countries. All course materials are in English; video lectures contain subtitles in English and Chinese.

Learning objectives. Through this course, you will:

1. **Apply** research explaining how nature education contributes to human well-being, makes communities healthier, and encourages people to be better nature stewards.
2. **Review** and critique different types of nature education programs, explore their outcomes, and adapt their educational ideas for your own practices.
3. **Exchange** practical ideas for nature education with other course participants and instructors, including through discussion boards and groups in social media.
4. **Create** a plan for incorporating nature education activities in your organization, educational program, community, or family.

Principles of nature education. This course is based on the following principles:

1. **Connection with nature.** Nature education helps satisfy humans' need in connecting with nature, which is a feeling of belonging to the natural community
2. **Well-being.** Nature education fosters physical and mental health and well-being.
3. **Community.** Nature education contributes to community outcomes such as social cohesion, shared experiences, and development of shared values.

4. **Stewardship.** Nature education fosters environmental stewardship and action.
5. **Place.** Nature education fosters connection with nature in many different places, from wilderness to city centers.
6. **Inclusion.** Everyone benefits when nature education offers inclusive experiences for people with any background: different ages, ethnicities, cognitive and physical abilities, and special needs.
7. **Care.** Nature education includes caring role models, family, and other significant people who help anyone connect with nature.
8. **Play.** Unstructured time in nature helps children and adults establish a lasting connection with nature.
9. **Interpretation.** Interpretative nature education, including storytelling, art, film, and mobile technology, fosters connection with nature.
10. **Culture.** Traditional and indigenous ways of connecting with nature, such as meditation and urban foraging, are part of nature education.

Platform. The course uses the EdX Edge learning management system, which contains course materials including video lectures, readings, and discussion boards. We also use optional Facebook and WeChat groups for informal exchange of ideas. In addition, we will conduct optional weekly webinars with guest speakers and office hours via Zoom.

Teaching philosophy: (1) *Research-Based.* Course is based on ideas from research publications. (2) *Critical Thinking.* We promote critical analysis and discussion of any information in this course. (3) *Social Learning.* Effective learning is social, thus course participants will have opportunities for ideas exchange and networking with peers and instructors. (4) *Practice Change and Innovation.* We encourage higher-level thinking among course participants to help them improve their real-world practices, and to develop new ideas and collaborations.

Certificate. This is a non-credit course. Participants who successfully complete the course requirements are awarded a Cornell University certificate with 20 professional development hours. Certificate requirements include: (1) each week, write reflections on discussion boards, (2) each week, post one comment for another course participant on discussion board, (3) write reflections for one webinar at any time during the course, (4) submit the final one-page project (your plan for nature education activities) by the last day of the course.

Course overview

Each week's learning materials contain: video lectures, required and optional readings, required discussion boards, and optional exchange of ideas in social media groups.

- Week 1 — Nature education framework. Background and definition. Nature education principles.
- Week 2 — Nature education outcomes. Physical and mental health. Social benefits.
- Week 3 — Nature education programs. Nature education and children. Nature interpretation. Inclusive nature education.
- Week 4 — Learning in different contexts. Nature education in wilderness vs in cities. Formal vs nonformal nature education. Science learning.
- Week 5 — Final project: create a nature education plan for your organization, school, family, or yourself.

Video lectures

Course videos are available on YouTube:

<https://www.youtube.com/playlist?list=PLtQukUNNUYTOI2rcmGCm4WXEpolGjisyD>

- Nature education: Background and definition
- Principles of nature education
- Nature education: Physical and mental health
- Nature education: Community benefits
- Nature education with children
- Inclusion in nature education
- Nature education: Interpretation
- Nature education: Science learning
- Nature education in wilderness vs cities

Webinar schedule

Participation in live webinars enables you to interact with the course instructor, guest speakers, and other peers. Webinars are recorded and posted on the course platform.

- 4/10, 8:00-9:00am — **Course introduction** — Alex Kudryavtsev, Extension Associate, Cornell University.
- 4/17, 8:00-9:00am — **Introduction to interpretation** — Thomas Mackey and Xue Dong, SUNY College of Environmental Science and Forestry
- 4/17, 9:00-10:00am — **Benefits, barriers, and opportunities for nature in schools** — Amie Patchen, Post-doc, Public Health Program, Cornell University.
- 4/24, 8:00-9:00am — **Creating the conditions for people to care about the environment: Connecting families to nature** — Chiara D’Amore, President, The Community Ecology Institute.
- 4/24, 9:00-10:00am — **Nature education: Examples in China** — Huang Yu, Associate Professor, Institute of International and Comparative Education, Beijing Normal University.
- Tuesday 4/30, 8:00-9:00am — **Learning through a forest school approach** — Caylin Gans and Landere Naisbitt, graduate students at Antioch University New England, *and* leaders at theTracks Forest School & Outdoor Education.
- 5/1, 8:00-9:00am — **Community engagement in nature education** — Jen Klein, Mass Audubon, Massachusetts, USA.
- 5/1, 9:00-10:00am — **Nature education in different contexts, including STEM (science, technology, engineering, and math fields)** — Kelly L. Hoke, Center for Research on Lifelong STEM Learning, Oregon State University.
- 5/8, 8:00-9:00am — **Wetlands-based nature education in China** — Baohua Yan, Shenzhen Mangrove Wetlands Conservation Foundation
- 5/8, 9:00-10:00am — **Reconnecting learners with nature: Strategy and evaluation tools** — Yu-Chi Tseng, Assistant Professor, National Taichung University of Education.

Sample Course Contents: Week 1

Intro

Welcome to Week 1, “Introduction” to the Nature Education course! This week, you will:

- **Review** the foundation, definition, and principles of nature education.
- **Post** reflections and comments for others on Edge edX discussion board.
- **Use** optional resources, including readings, social media, webinars, and final project requirements.

Reminder: To receive the course certificate, you complete the following requirements by 5/14 [link]. If you have any questions please email us [link] (please type “NE course” in the subject line).

Disclaimers: (1) The Nature Education course will provide a review of nature benefits for health.

However, this course is not a substitute for professional medical advice or treatment. Advise with your physician or other qualified health provider with any questions you may have regarding health or medical

conditions. (2) This course and Cornell University do not provide safety guidelines for nature-based and outdoor experiences. If necessary, consult with your human resources representatives before you organize such experiences for yourself and others. (3) This course offers readings obtained through Cornell University library, including articles and parts of other publications under the fair use policy. These readings are only for the use by course participants. Please do not share any course materials outside this course, but you are welcome to provide training for your colleagues based on what you learn in this course.

Watch

Please watch two video lectures. Think how ideas from these videos apply to your situation. Click “CC” for English or Chinese subtitles.

- Nature education: Background and definition
- Principles of nature education

Read

Please choose and read any two of these readings. Think how ideas from these readings apply to your situation. [Link for the list of readings]

Final Project

To receive the course certificate, you must submit your one-page final project by the last day of the course (we absolutely cannot accept any assignments later). To get started, familiarize yourself with the final project requirements (we will work on the final during the last week of the course): [Link]

Discuss

(A) In the Week 1 discussion board, please briefly answer these questions (click "Add a Post") to write your reflections):

1. *Introduce yourself.* What is your name, work, organization, location, country?
2. *Nature experiences.* What were your significant nature experiences? Tell us a personal story about how you became connected with nature, and interested in nature education. Tell a specific story: what happened, when, where, with whom, and how it still influences you today.
3. *Final project.* What will be your final project in this course? Please describe your preliminary ideas for your final project. What are the goals, who is the audience, where will it take place, and what will be an activity? (You can change your preliminary ideas later.)

(B) Also, in the Week 2 discussion board, please write at least one meaningful comment for other participants.

(C) Finally, please type your country at the end of this page.

[Link for the discussion board.]

Webinar

Join optional weekly webinars on Wednesdays at 8am Eastern Time (time in New York). You will have an opportunity to communicate with course instructors, guest presenters, and other course participants. Webinars will be recorded and posted below within 2-3 days after a webinar. Please login to the webinar at least 5 minutes before the scheduled start time to make sure your connection is good.

- Topic: Course Introduction (by course instructor Alex Kudryavtsev, Cornell University),
- When: Wednesday, April 10th, at 8am Eastern Time (time in New York)
- Link: [link]

Network (optional)

In this course, we use optional social media groups: Facebook, WhatsApp, and a Chinese-speaking group on WeChat. Join any of our groups to informally network with other course participants: Our optional

social media groups offer opportunities to exchange ideas, get to know other students, and find additional resources. Please:

- Introduce yourself (include some photos).
- Share relevant resources (nature education links, curricula, news, ideas, photos, professional development opportunities).
- Post photos from your nature education activities.
- Welcome other participants by posting comments and tagging their names.
- Help each other understand course materials.
- Ask relevant questions, respond to others' questions, start new conversations.

Explore (optional)

This section contains optional websites and readings for your own exploration.

Optional readings: [links]

Optional websites:

- Nature Works Everywhere: explore lesson plans with videos!
<https://www.natureworkseverywhere.org/resources>
- Children and Nature Network (<https://www.childrenandnature.org>).
- Nature Pedagogy International Association (<https://www.naturepedagogy.com>)
- Nature Play (<https://natureplaysa.org.au>)
- Natural Start Alliance: <https://naturalstart.org>
- Connecting People to Nature (NAAEE webinar): https://youtu.be/BJP_0jln3s4?t=430
- Nature Bridge: <https://naturebridge.org>
- The Nature of Cities: <https://www.thenatureofcities.com>
- Citizen Science at Cornell: <http://www.birds.cornell.edu/citizenscience/>

Please enroll in this course to see included readings and the contents of other weeks.

The development of this course is sponsored by:

