

# ENVS 425/525: Environmental Education in Theory & Practice

CRN 22825/22833, Winter 2018, Tues 2-3:50 am, Thurs 2- 4:50 pm, 142 Columbia Hall

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## Course Overview

This class is the first quarter of the Environmental Leadership Program's two-quarter Environmental Education Initiative. During the winter we will explore various educational theories and the rationale for getting children outside. We will cultivate our own ecological literacy as we develop our skills as environmental educators. Developing sensory awareness – both ours and the children we work with – will be central to our mission. You will work in your team to apply your skills, strengths and creativity towards developing educational materials that will help children connect to the magnificent natural world. Then during spring term you will deliver your environmental education program – in the classroom and in the field. This year the three EE teams and community partners are:

Canopy Connections – H.J. Andrews Experimental Forest and Pacific Tree Climbing Institute

Restoring Connections – Mt. Pisgah Arboretum and Adams Elementary

Cultivating Connections – School Garden Project of Lane County

## Course Format & Philosophy

The Environmental Leadership Program is a community-based learning program. Our goal is to create meaningful learning experiences that not only help you build your knowledge and skills, but that also make a positive difference in our community. Active, engaged participation is central to this class, so if you prefer passive learning, this class is not for you! Rather, we will focus on critical analysis of the readings using small group discussions and participatory exercises. Emphasis will be placed on critical thinking, effective communication skills, and making learning fun. We, as a group, will be responsible for the learning that occurs. That means you are responsible for doing all the reading and coming to the class prepared for critical discussion. Everyone is expected to share their opinions, perspectives and experiences and to help build a positive, safe, learning environment. By June, I hope you are all inspired and “willing to act for the common good and capable of doing so effectively” (Colby 2003:7).



## Learning Outcomes

By the end of this course, you will be able to:

- Discuss the history and goals of environmental education.
- Plan, implement and evaluate multiple methods for teaching about environmental issues.
- Develop educational materials (for specific audiences) that inspire them to be better stewards of the world.
- Work more effectively in a team.

## Required Reading & Materials

- ❑ Young, Jon, Ellen Haas, and Evan McGown. 2010. *Coyote's Guide To Connecting with Nature*. 2nd Ed. Shelton, WA: Owl Link Media Corporation.
- ❑ Louv, Richard. 2006. *Last Child in the Woods. Saving our Children from Nature-Deficit Disorder*. NC: Algonquin Books of Chapel Hill.
- ❑ Various articles posted on Canvas.
- ❑ Field notebook (and whatever drawing, painting, writing tools (e.g. ink pens, pencils, erasers, watercolor pencils, brushes) you prefer. Recommended: hand lens, binoculars, field guides.
- ❑ Recommended: Tomlinson, Susan Leigh. 2010. *How to Keep a Naturalist's Notebook*. Mechanicsburg, PA: Stackpole Books.

## Course Requirements

### **1. Participation (10%)**

This grade is based upon attendance AND the quality of your participation. Due to the participatory nature of this class, absences are impossible to “make-up” and thus inherently will affect your grade. Your participation grade includes completing all the assigned reading, reading and commenting on the critical reviews of others, coming to class on-time and prepared to discuss the materials in an analytical manner, active engagement in class activities, and bringing informal notes that summarize the main take home points for each reading and at least one question to contribute to the discussion of the readings for each class. Participation also includes the following required field trips:

- All: Coyote Mentoring Workshop at HJ Andrews (Saturday 1/13)
- All: Coyote Mentoring Workshop with Whole Earth Nature School at Mt. Pisgah (Saturday 1/27)
- All: Pilot of Restoring Connections field trip at Mt. Pisgah Arboretum (tbd, Thurs 3/8 or Fri 3/9)
- Canopy (others welcome): Pilot of your field trip at HJ Andrews Experimental Forest (Sat. 3/10)
- Cultivating: Teacher Training Workshop (4 hours, Saturday 1/20)
- Cultivating: Shadow 2 BEST programs (tbd, based on your schedules, see dates in team packet).
- Cultivating: In-school Program Volunteer Training (2 hours, date tbd)
- Restoring: Shadow 1 class visit & field trip (tbd, based on your schedules, see dates in team packet).

### **2. Sit Spot and field observation notebooks (10%)**

You will be honing your observation skills by keeping a *weekly* field notebook. In our hectic lives, we don't often have the luxury to slow down and observe the beauty of nature around us. A good educator has the ability to inspire wonder, and help kids slow down and notice the brilliance in the details, in the tiny goings-on. This assignment creates space to develop these skills. Please bring your field notebook to every class as we will be actively using them! Please see assignment details on Canvas.

### **3. Critical reviews of reading (15%)**

Learning how to actively engage with the materials you read is a skill that takes practice. The goal of this assignment is to make you a better critical thinker and to encourage you to be an active, engaged reader. Please see assignment details on Canvas.

### **4. Facilitating class discussion of reading (5%)**

Working in groups, you will be in charge of facilitating an engaging 30-minute discussion of the readings. By the end of the discussion, everyone should have a clear understanding of the key points of the readings and how they are relevant to your projects. As a group, you will develop a simple lesson plan that outlines the methods you will use to encourage everyone to participate (feel free to be creative)

and the specific questions that you will use guide your discussion. Please submit your lesson plan via Canvas 24 hours prior to your class discussion. The goal is to give you an opportunity to practice your facilitation skills, while also developing a deeper understanding of the key concepts we are exploring.

**5. Midterm exam (20%)**

There will be an in-class exam on Tuesday February 20, 2018. This exam will cover key concepts discussed in the reading, in class, and on fieldtrips. The objective is to assess your ability to apply what you have learned so far. The format will be short answers with 1 essay question.

**6. Group project: Environmental education materials (40%)**

Working in your teams, you will be developing education and outreach materials for your community partners. This is where you get to apply what you are learning and tap into your creative energies! Your group project has been designed in collaboration with your community partners in order to benefit the wider community. Thus, the exact final products will vary based on the needs of your partner, your audience, site, etc. However, the goal for all teams is to produce professional quality educational materials that you and these organizations will be able to use in the future. At the end of the term, each team will showcase their materials and/or pilot their lessons and undergo a peer review process. Please see assignment details on Canvas.

**Summary of class activities and grading**

Activity	Total Points	Percent of Grade
Participation	50	10%
Sit spot and field observation notebook	50	10%
Critical reviews of the reading (five, 15 pts each)	75	15%
Facilitating one class discussion	25	5%
Midterm exam	100	20%
Group Project – EE materials	200	40%
<b>Total Points</b>	<b>500</b>	<b>100%</b>

Grading

In the service of fairness, late assignments will drop 5 pts. every day until submitted. Sorry, but no exceptions unless you have an excused medical reason (with a note from the student health center) or have made pre-arrangements with me. We are working with community partners and it is critical we meet all our deadlines to maintain good relations! Incompletes are not available for this class.

Academic Honesty

I expect everyone to strictly adhere to the University Student Conduct Code (<http://policies.uoregon.edu/vol-3-administration-student-affairs/ch-1-conduct/student-conduct-code>). All work submitted for this course must be your own and be written exclusively for this course. You must properly acknowledge and document all sources of information (e.g., quotations, paraphrases, ideas, photos). If you have any questions, it is your obligation to clarify the question before submitting your work.

Inclusive Learning and Academic Access

If you have a disability (physical or learning), medical condition, or other situation that you think may affect your performance in this class, please see me during the first week of the term so that I can make arrangements, if necessary, for your full access to all classroom activities. You may also wish to contact Accessible Education Center in 164 Oregon Hall at 346-1155 or [uoac@uoregon.edu](mailto:uoac@uoregon.edu).

## Schedule of Topics, Readings & Activities

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### Week One: Breaking Ground

#### Tuesday January 9

- Ⓢ Introductions, setting class norms, course overview.
- Ⓢ Activity: Defining environmental education.
- Ⓢ To get started on your field notebook assignment, please read:
  - ➔ Tomlinson. The Daily Log. Pp. 124-129; and Descriptive Notes. Pp.136-138.
  - ➔ CNPS. 2012. Introduction. Pp. 4-8. (stop at Integrating Language Arts & Field Journals)
  - ➔ Moore, Kathleen Dean. 1995. Winter Creek, in *Riverwalking. Reflections on Moving Water*. Pp. 31-37.
- ➔ Get connected: sign up for free EE newsletters for the term
  - ➔ Children and Nature Network: <http://www.childrenandnature.org>
  - ➔ Environmental Education Association of Oregon (EEAO): <http://www.eeao.org/>
  - ➔ North American Association for Environmental Education (NAAEE). Subscribe to eePRO, and/or their newsletter, eeNews, or eeJOBS. <https://naaee.org/eepro/about-eepro>

#### Thursday January 11 – Project Work: Orientation with Community Partners

- Ⓢ Community partner presentations
- Ⓢ Focus on skills: facilitating effective team meetings
- Ⓢ Team planning session: defining mission, goals, vision. To prepare, please read:
  - ➔ Community partner websites and project overview info in packet

#### Saturday January 13 – Introduction to Coyote Mentoring – Field trip to HJA

- ➔ Leave Onyx Bridge, 9:00am sharp. Bring lunch, water, field notebooks.
- Ⓢ Trail hike, mapping, more – come prepared for cold and wet weather! To prepare, please read:
  - ➔ *Coyote's Guide*, Ch. 2, pp. 21-33, and Ch. 3, pp. 35-47 (Sit Spots through Expanding our Senses)
  - ➔ Young. 2012. The Sit Spot, in *What the Robin Knows*. Boston: Mariner Books. Pp. 48-79.

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### Week Two: Building a Foundation

#### Monday January 15, noon

- ➔ MLK Holiday: see the Holden Center. <http://holden.uoregon.edu/dayservice> for opportunities to serve your community. Project shifts are typically 2-3 hours. Transportation and light snacks provided. Registration required.

#### Tuesday January 16 – History of EE

- ➔ Critical review #1 due, by 9am, posted to Canvas
- Ⓢ Group discussion of readings – Defining environmental literacy, EE, and current status of EE in OR and US.
  - ➔ Stapp, William B., et al. 1969. The Concept of Environmental Education. Pp. 33-36.
  - ➔ Tbilisi Declaration. 1977. Summary of goals and guiding principles.
  - ➔ Carter and Simmons. 2010. The History and Philosophy of Environmental Education. In *The Inclusion of Environmental Education in Science Teacher Education*. Bodzin et al., eds. Springer: NY. Pp. 3-16.
  - ➔ Subramaniam, A. 2002. *Garden-Based Learning in Basic Education: A Historical Review*. Monograph, 4-H Center for Youth Development, University of CA: Davis.
  - ➔ Oregon Environmental Literacy Task Force. April 20, 2013. Ch. 1 Introduction; Ch. 2 Environmental Literacy – Vision and Essential Underpinnings; Ch. 3: Educational Standards and Graduation Requirements. Pp. 9-24.
- Ⓢ Skills Workshop: Field Notebooks (please read the following before class!):
  - ➔ Tomlinson. Chapter 2. Field Sketching: Basic Skills. Pp. 23-45.

#### Thursday January 18 – Field trip to Mt. Pisgah Arboretum

- ➔ Meet at Onyx Bridge at 1:50pm.
- ➔ Team Planning Session # 1 “worksheet” due (one per team)
- Ⓢ Community partner-led training – come prepared for hiking in wet and cold weather, bring your field notebooks!

- Ⓞ Please read these delightful, inspiring, fun readings prior to the field trip:
  - ➔ *Coyote's Guide*, Ch. 3, pp. 47-76 (Questioning and Tracking to Thanksgiving)

#### Saturday January 20 – Cultivating Connections Training

- ➔ 9 -1pm. Place tbd. Coffee, tea, snacks provided. Bring field notebook. Register at: [info@schoolgardenproject.org](mailto:info@schoolgardenproject.org)

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### **Week Three: Planning and Implementing EE**

#### Tuesday January 23

- ➔ Critical review #2 due, posted to Canvas
- Ⓞ Lively and fun discussion of *Coyote's Guide*, Ch.2, 3, 8, facilitated by: \_\_\_\_\_
  - ➔ *Coyote's Guide*, Ch. 8. Pp. 125-130, two sections (your choice), 193-194.
- Ⓞ And to deepen your sit spot/journaling practice, please read:
  - ➔ Tomlinson, Ch. 3. Field Sketching: Beyond the Basics. Pp. 47-64 (stop at Perspective)
  - ➔ Zwinger, Ann. 2012. The Art of Wandering (1986). In *Wonder and Other Survival Skills, A Selection of Essays from Orion Magazine*. Massachusetts: Orion. Pp. 33-45.
- Ⓞ Focus on skills: lesson planning – SMART learning outcomes.

#### Thursday January 25 – The Natural Cycle

- Ⓞ Team work session – applying the Natural Cycle of Learning and the Guidelines of Excellence to your materials
- Ⓞ Engaging group discussion of Guidelines facilitated by: \_\_\_\_\_
- Ⓞ To be prepared for today's activities, please carefully read these before class:
  - ➔ *Coyote's Guide*, Ch. 9 and 10, pp. 197-215, 228-229.
  - ➔ North American Association for Environmental Education (NAAEE). *Environmental Education Materials: Guidelines for Excellence*. Pp. 1-23.

#### Saturday January 27 – Field trip to Mt. Pisgah

- ➔ Meet at Onyx Bridge at 8:50am. Leave at 9am sharp. Bring lunch, water, field notebooks.
- ➔ Guest facilitator: Rees Maxwell from Whole Earth Nature School - come prepared for wet and cold weather!

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### **Week Four: Fostering Learning**

#### Tuesday January 30

- ➔ Critical review #3 due, posted to Canvas
- Ⓞ Thoughtful group discussion of readings
  - ➔ hooks, bell. 1994. Ch. 1: Engaged pedagogy; Ch. 3: Embracing change – teaching in a multicultural world; and Ch. 12: Confronting class in the classroom. In *Teaching to Transgress. Education as the Practice of Freedom*. NY: Routledge. Pp. 13-22, 35-44, 177-189.
  - ➔ Cole, Anna Gahl. 2007. Expanding the Field: Revisiting Environmental Education Principles Through Multi-disciplinary Frameworks. *Journal of Environmental Education*. 38(2):35-46.
  - ➔ NAAEE. 2004. Guidelines for the Preparation and Professional Development of Environmental Educators. Theme # 5- Fostering Learning. Pp. 19-20.
- Ⓞ Activity: Analysis of privilege and what that means for our teaching practice.

#### Thursday February 1

- ➔ Team Plans (using team planning worksheet #2) due today (one per team)
- ➔ Engaging group discussion facilitated by: \_\_\_\_\_
- Ⓞ Please read for today:
  - ➔ *Coyote's Guide*, Ch. 4 and Ch. 5. Pp 79- 103.
  - ➔ Sobel, David. 1996. *Beyond Ecophobia: Reclaiming the Heart in Nature Education*. Nature Literacy Series. Great Barrington, MA: The Orion Society.
- Ⓞ Team Work Session

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## **Week Five: Planning and Implementing EE- getting creative!**

### Tuesday February 6: Maps (w/Colin)

- Critical review #4 due, posted to Canvas
- Team meetings with Katie this week
- ⊙ Dynamic group discussion of readings, facilitated by \_\_\_\_\_
  - Jacobson, et al. 2006. Excerpt from Ch. 6: Using the arts for conservation, pp. 174-176; and Ch. 7: Connecting classes and communities with conservation. Pp. 241-249 (maps).
  - Clark, Delia and Steven Glazer. 2004. Introduction: Place-based education. In *Questing. A guide to creating community treasure hunts*. Hanover: University Press of New England. Pp. 1-17, 155-171.
  - Tomlinson, Ch. 4: Field Drawing: Tips for the Field. Pp.75-85; and Maps, Pp. 142-147.
- ⊙ Hands-on Activities!

### Thursday February 8: Storytelling Workshop

- ⊙ Focus on skills: Storytelling
- ⊙ Please read for today:
  - *Coyote's Guide*, Ch. 6: Storytelling, pp. 105-116.
  - Strauss, Susan. 1996. Ch. 6: Telling Scientific Fact as Story. In *The Passionate Fact: Storytelling in Natural History and Cultural Interpretation*. Pp. 69-88.
  - Excerpts from *Spinning Tales, Weaving Hope. Stories, Storytelling and Activities for Peace, Justice and the Environment*. Ed Brody, et al., eds. New Society Publishers. Montpelier, VT: Capital City Press. Pp. x -10.
- ⊙ Team work session: creating YOUR species stories.

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## **Week Six: Assessment and Evaluation**

### Tuesday February 13

- Critical review #5 due, posted to Canvas
- ⊙ Insightful group discussion of readings:
  - *Coyote's Guide*. Ch. 11 Indicators of Awareness. Pp. 257-276.
  - Jacobson et al. 2006. Section 1.5: Evaluation. Pp. 24-34.
  - NAAEE. 2004. Guidelines for the Preparation and Professional Development of Environmental Educators. Theme # 6- Assessment and Evaluation. Pp. 21-22.
- ⊙ Team work session: Developing your assessment strategies

### Thursday February 15

- Final project materials due today. Bring 2 copies to class for peer review.
- ⊙ Engaging group discussion of readings, facilitated by \_\_\_\_\_
  - Marcinkowski, Thomas. 1998. Assessment in Environmental Education. In *Environmental Education Teacher Resource Handbook*. Kraus International Publications in Association with the National Science Teachers Association. Skim sections I, II, V, but read III and IV for ideas on how to really assess if you've successfully brought your students from Awareness to Action.
  - TenBrink, T. and Cooper, James M. 2003. *An Educator's Guide to Classroom Assessment*. Boston, MA: Houghton Mifflin Co. Pp. 33-34.
  - Environmental Literacy Council. 2008. Assessments. <http://www.enviroliteracy.org/article.php/1185.html>  
Read about rubrics.
- ⊙ Team work session: Finalizing assessment strategies and polishing lesson plans
- ⊙ Activity: Preparing for the in class exam. (please bring all your notes from class and readings)

### **Week Seven: Bringing It All Together/ Professional Responsibilities**

#### Tuesday February 20

- In-class exam
- Field notebooks due

#### Thursday February 22

- ⊙ Please read for today's group discussion:
  - Louv, R. 2006. Introduction and Ch. 5. In *Last Child in the Woods. Saving our Children from Nature-Deficit Disorder*. NC: Algonquin Books of Chapel Hill. Pp. 1-4, 54- 69.
- ⊙ Lecturette: Professional organizations and EE in Oregon and the US.
- ⊙ Team work session: Undergraduate Research Symposium abstracts

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### **Week Eight: Focus on Skills: Working with Children**

#### Tuesday February 27

- Critical review #6 (of 2/27 readings) due, posted to Canvas
- ⊙ Thoughtful group discussion of readings, facilitated by \_\_\_\_\_
  - Louv, R. 2006. Ch. 6, 7, 8, 16. In *Last Child in the Woods. Saving our Children from Nature-Deficit Disorder*. NC: Algonquin Books of Chapel Hill. Pp.70-84, 86-98, 99-112.

#### Thursday March 1

- Final abstract due for Undergrad Research Symposium, posted to Canvas
- ⊙ Thoughtful group discussion of the readings, facilitated by \_\_\_\_\_
  - Teaching Tolerance. Reframing Classroom Management: A Toolkit for Educators.
  - Read these beautiful inspiring pieces by Ann Pelo. 2013. *The Goodness of Rain*.
    - Footsteps on the Ground, in. Pp. 63-71.
    - Eagles and Salmon Reverence. P. 75-80.
    - Reverence. P. 86-90.
    - Naming and Knowing, in *The Goodness of Rain*. Pp. 104- 109.
    - Creating Stories, in *The Goodness of Rain*. Pp. 151-163.
    - Make Rituals: Pooh Sticks, in *The Goodness of Rain*. Pp. 167-170.
    - A Call to Come Home, in *The Goodness of Rain*. Pp. 179-186.
- ⊙ Focus on skills: Group dynamics role-play activity.

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### **Week Nine: Pilot Tests**

This week, teams will do a run-through of your curriculum materials. Everyone will participate and peer review each other, providing constructive feedback on how to improve the materials. Community partners are invited to these pilots.

#### Tuesday March 6

- Revised project materials due, one hard copy document per team
- Restoring Connections Pilot: Spring 3<sup>rd</sup> pre-trip lesson (45 min), debrief
- Canopy Connections Pilot: 6<sup>th</sup>-8<sup>th</sup> grade pre-trip lesson (45 min), debrief

#### Thursday March 8

- Cultivating Connections Pilot: BEST afterschool lessons, debrief. **OR**
- Restoring Connections: full K/1 or partial 2/3 grade Spring field trip pilot (Mt Pisgah)

#### Friday March 9 (if schedules allow)

- Restoring Connections: full 3<sup>rd</sup> grade Spring field trip (Mt Pisgah, 8:50 meet at Onyx Bridge, return 3:00pm)

Saturday March 10 (Required for Canopy, optional for others)

- ➡ Canopy Connections facilitates field trip (HJA, 8:00 leave Onyx Bridge, return by 5:00, with Springfield High School students)

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**Week Ten: Lesson Plan Pilots and Wrap**

We continue the pilot run-throughs of your curriculum materials and peer review process.

Tuesday March 13

- ➡ Cultivating Connections: BEST afterschool lessons, debrief. (if unable to do in week 9)

Thursday March 15

- ➡ Reflections and wrap
- ➡ Final sit spot field observation notebook due.
- 🕒 To prepare for our final discussion, please read:
  - ➡ Fried, Robert. 2004. The heart of the matter. In *Kaleidoscope. Readings in Education*. 10<sup>th</sup> ed. Ryan, Kevin and James M. Cooper, eds. Boston, MA: Houghton Mifflin Co. Pp. 15-17.
  - ➡ Pelo, Ann. 2013. Full-bodied Participation, in *The Goodness of Rain*. Pp. 117-124. And Finding Place. Pp. 39-53.

Friday March 16

- ➡ Final undergraduate symposium abstract due – uploaded on their website. See guidelines online.
- ➡ **Course evaluations:** On-line course evaluations close midnight on Sunday prior to the beginning of final exams. Please use your new insights on pedagogy and facilitation to share thoughtful and constructive feedback on this course this weekend!

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**Finals Week**

Tuesday March 20

- ➡ Revised and finalized project materials due at end of your exam period, 2:30pm. (Hard copy can be dropped at my office. Electronic copy should be emailed to both me and course GE.)