ENVS 177 – Teaching Environmental Education

Spring Quarter 2015
Tuesdays, Thursdays 4:00-5:45PM
Natural Sciences Annex 102

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Office Hours: Tuesdays, Thursdays
10-11am in the Life Lab offices on the CASFS Farm

Course Description
As the world faces critical environmental issues, many related to human impact and the use of natural resources, it has become vitally important to “develop a world population that is aware of and concerned about the environment and its associated problems, and which has the knowledge, skills, attitudes, motivations and commitment to work individually and collectively toward solutions of current problems and the prevention of new ones” (Belgrade Charter on Environmental Education, UNESCO, 1976). At the same time, research shows that students learn traditional academic subject matter such as math and language arts better when it is taught within the context of environmental education. This course is designed to explore the most effective ways to integrate meaningful, effective environmental education into our K-12 school system. The questions we will consider include:

- What is the value of environmental education?
- What are different ways environmental education is integrated into schools?
- What opportunities and challenges exist for integrating environmental education in the national public school system?
- What elements make environmental education effective and engaging?
- What type of environmental education is appropriate for various age groups?
- How can we measure the impact of environmental education?

Students in this course will be expected to have familiarity with environmental issues and ecosystem and/or agroecosystem management, and have a strong interest in exploring opportunities to apply this knowledge as educators. This course encourages students to think about education from the viewpoint of the teacher. Participants are invited to explore their own educational experiences, observe teaching from a professional’s point of view, learn about the teaching/learning process, as well as understand more about K-12 learners. It is specifically focused on ENVS majors who want to pursue a focus on environmental education within ENVS and/or the Education Department’s minor.
A practicum in the schools of 21 hours/quarter (3 hours/week starting the week of April 13th) is required where students will have the opportunity to observe and support a teacher who integrates environmental education into his or her curriculum.

**Required Textbook/Readings**

Text: *Ecological Literacy – Educating Our Children for a Sustainable World*
Stone, Michael K. and Zenobia Barlow (Editors); Published by Sierra Club Books, 2005. Limited copies available at Bay Tree Bookstore and [www.amazon.com](http://www.amazon.com). Also available as an ebook through the UCSC University Library.

**Online Readings:** Links are provided in eCommons

A class library of environmental education curricula and materials will be maintained in the classroom. For access outside of class, please talk to me before or after class.

**Expectations and Evaluations:**

The class structure, assignments, and grading are described below. Separate documents, posted on eCommons, will provide more details related to each assignment.

Class Participation and Prompt Completion of All Assignments: The structure for this course will be that of a seminar where we are all actively engaged in learning from each other. Thus your participation in the class – attendance, being prepared with readings and assignments completed, and active participation in activities – will be the foundation for our learning environment and a core responsibility for each member of the class community. (evaluation = 15%, including 0.5% for completion of course evaluation)

School Placement: Each student will have a placement with a K-12 teacher who incorporates environmental education into her/his classroom. The purpose of the placement is for you to observe how the structure, management, and planning for the day impact the student engagement and learning, and support the teaching and learning that takes place. It is expected that you will set up a weekly time to be in the placement class and that over the quarter you will observe and engage with the students for 3 hours, including your travel time (so a student in a Watsonville school would set up a 2 hour observation, and a student on the Westside of Santa Cruz would observe for 2.5 hours). Your placement teachers will evaluate you on being reliable, prompt, helpful, and communicative. (evaluation=15%)

Journal: The purpose of your journal is to provide a space for you to think deeply about what you’re seeing and learning about Environmental Education; discover connections between readings, discussions, and placement experiences; and make time and space for your own new questions and ideas to bubble to the
There are specific formatting instructions in the Journal Description posted in eCommons, and you will be evaluated via open journal quizzes. (evaluation=15%)

Persuasive Speech: Each student will choose a controversial topic related to environmental education that matters to him/her. You will write an outline and then present a 3-5 minute speech designed to bring others to your point of view by using emotion, logic, reasoning and/or ethics. Your goal is to inspire your audience to change, adopt, or modify their behavior. It is not a sales talk, but instead it is designed to make a case about something on which there is disagreement or controversy. You must present sufficient logic and evidence – in this case, at least 2 pieces of research -- to swing the audience to your position on a debatable proposition. (evaluation=15%)

Model Lesson (Group Project): Throughout the quarter, you will be part of a discussion group of about 5 students. At the end of the quarter, your group will be responsible for preparing a lesson, presenting it to our class, and teaching it in your placement classrooms. (evaluation=15%)

Final Essay: Explore opportunities, challenges, and solutions that exist for incorporating quality environmental education into public education. Include examples from your placements and examples from the reading. 6-8 pages, double-spaced. (evaluation=25%)

**ENVS Environmental Education and Sustainability Focus**

Environmental education and sustainability (EE&S) is an interdisciplinary field that focuses on preparing students to become environmental educators with an emphasis on teaching in the context of the environment, social justice and sustainability. EE&S integrates course work in natural history, ecology, political economy and policy, agroecology and food systems and emphasizes the development of teaching methodologies. Students are expected to enhance their theoretical understanding of teaching pedagogy, style, and approach within an environmental context as well as develop a stronger portfolio of teaching-related skills and knowledge.

Environmental educators work in a number of capacities, including: primary and secondary teachers who emphasize ecology and the environment; indoor and outdoor educators at regional and national organizations focusing on ecology, conservation and landscapes; and interpretive educators at state and national parks.

The following courses are recommended for students interested primarily in Environmental Education & Sustainability:
- 177 Teaching Environmental Education
- 179 Environmental Interpretation
In addition to the suggested coursework, it is strongly recommended that students acquire teaching experience through seminars, local and regional school and teaching-related internships (either upper or lower division internships), and *practica* where they develop specific skills in teaching environmental education.
Week 1: Course Introduction, Community Introductions, Why Environmental Education?

Question to Consider:
- If you were to become an environmental educator, which type of educational environments would most appeal to you: Classroom; School Garden; Residential Outdoor School; State Park, or the like; museum; or something else? Why?
- Can you pinpoint a time or experience that inspired you to care about the environment? How could education be leveraged to inspire interest in the environment?
- From your perspective, are standards helpful or harmful in education?

Tuesday, March 31: Introductions, The Three Pillars of Environmental Education, Types of Environmental Education Programs, Overview of Placements

Thursday, April 2: Speaking the Language of Schools

Readings Due Thursday:
- Preface and Foreword to Ecological Literacy

Video Due Thursday:
- Sir Ken Robinson’s TED Talk: “How to Escape Education’s Death Valley” in eCommons or at: http://www.ted.com/talks/ken_robinson_how_to_escape_education_s_death_valley.html

Print Assignments Due Thursday:
- Placement Preferences
- Student Questionnaire

Week 2: Building Community, Building Connection

Questions to Consider:
- What happens in the absence of effective classroom management?
- Should students consider their teachers friends?
- At what age do you think children are ready to learn about environmental problems? How is the subject best approached?
- Do you share Sobel’s concern about the possible, unintended consequences of well-intentioned Environmental Education initiatives? How can we avoid them?
- What makes a speech engaging? Thought provoking? Compelling?

Tuesday, April 7: Building Community, and Persuasive Speeches
Reading Due Tuesday:
- Belvel, Patricia: “Chapter 1: Shifting from Manager to Leader” and “Chapter 2: Changing Our Style to Match Our Beliefs,” Rethinking Classroom Management in eCommons (NOTE: Both chapters are in 1 PDF)

Thursday, April 9: Building Nature Connection

Reading Due Thursday:
- Ecological Literacy chapters:
  - Finding Your Bioregion, 126
  - Loupe’s Secret, 206

Week 3: Enduring Understandings in Environmental Education

Questions to Consider in Your Journal:
- What are the most essential concepts and skills we need to teach in environmental education?
- How do the goals of environmental education overlap with the goals of schools?
- How is your classroom set up? Are there classroom elements that support environmental education? Opportunities for more?
- In your placement, what strikes you about how the students and teacher relate to one another?

Tuesday, April 14: Best Practices in Teaching and Learning

Readings Due Tuesday:
Ecological Literacy chapters
- Indian Pedagogy, 67
- Okanagan Education, 80
- Place and Pedagogy, 85
- Recollection, 96

Journal Quiz

Thursday, April 16: Knowledge and Skills in Ecological Literacy

Readings Due Thursday:
- Ecological Literacy chapters
  - Speaking Nature’s Language, 18
  - Solving For Pattern, 30
• Blumstein, Daniel. “The Failure of Environmental Education (and How We Can Fix It)” in eCommons

**Week 4: Next Generation Science and Environmental Education**

**Questions to Consider:**
- How is Next Generation Science different from “Last Generation Science”?
- What does Next Generation Science mean for the environmental education movement?
- Is it essential that environmental education happen outdoors?

**Tuesday, April 21: Next Generation Science Standards and Environmental Education**

**Presentation Assignment Due Tuesday:** 3 Student-Led Persuasive Speeches

**Readings Due Tuesday:**
- Coyle, Kevin. “Six Key Reasons the New Next Generation Science Standards are Great News for Environmental Education” on eCommons or at: [http://blog.nwf.org/2014/03/six-key-reasons-the-new-next-generation-science-standards-are-great-news-for-environmental-education/](http://blog.nwf.org/2014/03/six-key-reasons-the-new-next-generation-science-standards-are-great-news-for-environmental-education/)

**Thursday, April 23: NGSS in the School Garden**

**Reading Due Thursday:**
- Berhan, Kristen. “The Garden: A Master Teacher” in eCommons

**Presentation Assignment Due Thursday:** 3 Student-Led Persuasive Speeches

**Week 5: Effective, Inclusive Instruction**

**Questions to Consider:**
- Who is most actively engaged in learning activities in your placement? Who is least engaged?
- What strategies do you see educators employing to equalize participation? What’s working? What’s not?
- What is the “hidden curriculum” in your placement? In other words, what unplanned messages are students getting about themselves and the world via the group management structures being implemented?
- In your placement, what group management challenges do you see? What specific strategies do you see working? Which strategies appeal to you? Which don’t? Why?
Tuesday, April 28: Supporting English Language Learning

Journal Quiz

Readings Due Tuesday:
- Westervelt, Miriam. “Schoolyard Inquiry with English Language Learners” in eCommons
- “English Language Development in the Garden” in eCommons

Presentation Assignment Due Tuesday: 3 Student-Led Persuasive Speeches

Thursday, April 30: Cooperative Learning and Participation Strategies

No readings due.

Presentation Assignment Due Thursday: 3 Student-Led Persuasive Speeches

Week 6: Inquiry- and Project-Based Learning

Questions to Consider in Your Journal:
- How is the role of the student different in an inquiry- or project-based learning environment than in a traditional learning environment?
- Are you seeing inquiry- or project-based learning opportunities in your placement? If so, what do you think? If not, are there opportunities for such experiences? How might they be integrated?
- With all of the pressures on teachers to help student master the academic standards, how can they make time for inquiry- or project-based learning?

Tuesday, May 5: Igniting Inquiry Fever

Reading Due Tuesday:
- Ecological Literacy chapter: Urban Youth Activism, 213

Presentation Assignment Due Tuesday: 3 Student-Led Persuasive Speeches

Thursday, May 7: Project-Based Learning

Reading Due Thursday:
Ecological Literacy chapter: “It Changed Everything We Thought We Could Do”: The STRAW Project, 161

Presentation Assignment Due Thursday: 3 Student-Led Persuasive Speeches

Week 7: Inspiring Environmental Action, Youth Empowerment
Questions to Consider:

- Can character be taught? Is it being taught in your placement?
- Should schools be in the business of teaching character? If so, how should we agree upon which character traits to promote?
- Is “grit” always good?
- What is the “hidden curriculum” in your placement? In other words, what unplanned messages are students getting about themselves? About the world?
- Is failure important to success?
- How does systemic change take hold in established institutions, like schools?

**Tuesday, May 12: Character Education**

**Journal Quiz**

**Reading Due Tuesday:**

  

**Presentation Assignment Due Tuesday: 3 Student-Led Persuasive Speeches**

**Thursday, May 14: Empowerment**

**Reading Due Thursday:**

- Ecological Literacy chapters
  - Revolution, 135
  - Leadership, 149
  - Dancing with Systems, 193

**Presentation Assignment Due Thursday: 3 Student-Led Persuasive Speeches**

**Week 8: Bringing It All Together**

**Tuesday, May 19: Student-Led Lessons**

No readings due.

**Presentation Assignment: 3 Group Lesson Presentations**

**Thursday, May 22:**

No readings due.
Presentation Assignment Due Thursday: 2 Group Lesson Presentations

Presentation Assignment Due Thursday: 3 Student-Led Persuasive Speeches

Week 9: Sense of Place

Questions to Consider in Your Journal:
- How do the educator(s) in your placement inspire a love for the environment in children or youth? Is it working? Why or why not?

Tuesday, May 26: The Magic – Inspiring Nature Connection

Readings Due Tuesday:
- Ecological Literacy chapters
  - Helping Children Fall In Love with the Earth, 111
  - Watershed Education, 107
- David Sobel’s “Look, Don’t Touch!”

Thursday, May 28: Practice

No readings due.

Journal Quiz

Assignments Due Tuesday: 2 Group Lesson Presentations

Week 10: Practice, Environmental Ed Careers, Goal-Setting, Closing

Questions to Consider in Your Journal:
- Nelson Mandela once said that education is “the most powerful weapon, which you can use to change the world.” What do you think?
- How might you bring what you’ve learned … about kids, about teaching, about yourself, about the world … into your life after college?

Tuesday, June 2: Careers in Environmental Education

No readings due.

Assignment Due Tuesday: 2 Group Lesson Presentations

Thursday, June 4: Closing, Goal Setting

Date and Time TBD:
Digital Assignment Due: Final Essay