

CURRICULUM & INSTRUCTION IN OUTDOOR, ECOLOGICAL, & EXPERIENTIAL EDUCATION: I/S ENVIRONMENTAL SCIENCE

INSTRUCTOR: Dr. Bob Jickling
CLASS TIME/RM: DAY: Friday TIME: 11:00 – 3:00 And some weekends
Outside & BL2032 (See syllabus) for details
TEL / RM: 807- 343-8704, BL 2029
EMAIL: bob.jickling@lakeheadu.ca
OFFICE HRS: Thursday 10:00 A.M.– 12:00 Noon

COURSE DESCRIPTION

This course will examine the knowledge, skills, and values necessary to develop and implement outdoor education in school programs and in programs outside regular schooling for students at the Intermediate-Senior level as specified in the Ministry of Education and Training Documents. *Education 4284 I/S will lead to credit for a first or second teachable subject in Environmental Science.*

Note: An additional fee is required for this course.

FOUNDATIONS OF PROFESSIONAL PRACTICE

A commitment to a clear vision of what it means to be a teacher is at the core of teacher professionalism and is the foundation for this course. The principles of the Ontario College of Teachers' (OCT) *Foundations of Professional Practice* have been embedded in the learning expectations for this course.

COURSE EXPECTATIONS

The focus of this course is interdisciplinary. Using field experiences and readings, students also examine the value systems, or stories, that affect these issues, and how these values affect lifestyle choices and political decisions. Participants should expect to go outside in any weather, work experientially and collaboratively, and think about important issues.

There will be three weekend field trips. In some cases these trips will begin on Friday at 11:00 (possibly earlier) and in all cases will end at 4:00 on Sunday. The additional fee is charged to help defray costs of the field trips.

It is expected that, by the end of the course, learners will have:

- engaged with the content—the stories—presented through readings and discussions and enacted through outdoor activities,
- considered these stories and experiences in light of their own prior experiences and assumptions, and
- begun to re-imagine experiences, assumptions, and stories to live and teach by.

TEXTS/READINGS

Weston, A. (1994). *Back to Earth: Tomorrow's Environmentalism*. Philadelphia: Temple University
Tripp, P. & Muzzin, L. (Eds), *Teaching as activism: Equity meets environmentalism*. McGill-Queen's University Press.
Government of Ontario. (2009). *Acting Today, Shaping Tomorrow: A Policy Framework for Environmental Education in Ontario Schools*. <http://www.edu.gov.on.ca/curriculumcouncil/ShapeTomorrow.pdf>

Ontario curriculum, Gr. 11 & 12: Science http://www.edu.gov.on.ca/eng/curriculum/secondary/2009science11_12.pdf
Ontario College of Teachers, *Foundations of Professional Practice*: <http://www.oct.ca/standards/foundations.aspx>
Sierra Club of B.C. (No date) Barefoot Mapping (at the website the whole guide is delivered in 6 parts).
<http://www.sierraclub.bc.ca/education/files/barefoot-mapping-guidebook>
Additional Readings will be found in a Course Reader and in material provided by the professor.
At least one curriculum or curriculum supplement of your choice.

Supplemental Reading (No need to purchase):

Brooks, K. & McIlffaterick, E. (2003). *The Deep Ecological Handbook*. Thunder Bay: Lakehead University.
Project WILD Activity Guide. (1993). Ottawa: Canadian Wildlife Federation.
Jickling, Bob, Lotz-Sisitka, Heila, O'Donoghue, Rob, Ogbuigwe. Akpeizi. (2006). *Environmental Education, Ethics, and Action: A Workbook to Get Started*. Nairobi: UNEP.

REQUIRED SUPPLIES

Everyone is required to have a journal with blank (unlined papers). I would also encourage you to have a few art supplies; a small box of watercolour pencils and a paintbrush can be an excellent choice.

ASSIGNMENTS AND DUE DATES

Seminar Presentation (10%)

You are asked to give a 10-minute class presentation introducing a seminar based on weekly course readings. A written summary (about 1000 words) is **to be submitted within a week of the seminar**. The presentation should:

- Introduce the major elements the author is presenting in the chapters discussed. What point does the author want to make? Does the author justify his/her claims? Is there adequate support for these claims?
- describe what this reading selection means to your own thoughts, ideas, and experience. And, how do these readings relate to the roles of professional educators and community action projects?
- Suggest discussion points and questions for the seminar.
- You may be asked to lead a second seminar, but only one written summary is required.

Lesson Plan (10%)

You are asked to teach one short lesson to your colleagues. This will be accompanied by a lesson plan that is due as you present your lesson. The grade will involve a combination of instructor and peer evaluation. **Due immediately following the presentation.**

Two Short Assignments (40% - 20 marks each)

At intervals we will focus our work in the form of workshops on particular topics. You are asked to prepare a coherent and thoughtful response to each of these workshops in about 1000 words. Specific details about preparation of these assignments will be supplied during the workshops. The workshops and, hence assignment, topics are:

- A curriculum critique **Due October 28**
- Self-validating reduction **OR** Reimagining the world **Due March 2**

A Variation

As an alternate to the self-validating reduction or reimagining the world assignment, you may choose to:

- develop a unit plan for a school activity day that integrates Ministry's *Policy Framework for Environmental Education* in Ontario Schools and the Ministry Curriculum documents for Environmental Science.
- create 18 detailed journal entries (2 per week) that focus on connecting, or re-connecting, with place.
- create an interpretive story that you could use while teaching in formal and/or informal settings.

Creative Journal (10%)

You are asked to complete at least two creative journal entries per week for a total of 18 entries in the first term. One should be a reflection on the questions raised in anticipation of the weekly readings, the other should explore other

creative mediums of expression. The grade will involve a combination of instructor and self-evaluation. **Due October 21st.**

Quiz (10%)

There will be one short quiz in the semester after Christmas. Details TBA. **February 17.**

Experiential learning (out of 20%)

Some worthwhile educational activities defy measurement and evaluation. Indeed, they can even be hard to talk about, especially when the learning is experientially driven. The experiential learning components of this course—especially the field trips, fit this description. One way to look at these aspects of an experientially-based course is to think of them as a pass/fail experience. So this is along the lines of what I suggest we do with this portion of the grade. The expectations that we have for a pass is to achieve a standard right at the border between Level 3 and Level 4 on the faculty rubric—80 %. This evaluation, then, is divided into **4 parts, one for each of the field trips and one for the balance of your experiential learning opportunities.**

Assignment Summary	Weight	Due date
Seminar Presentation	10%	One week following presentation
Lesson Plan	10%	Immediately following presentation
Creative Journal	10%	October 21st
Curriculum critique assignment	20%	October 28
Quiz	10%	February 17
Self validating reduction assignment, or Reimagining the world assignment	20%	March 2
Experiential Learning	20%	Ongoing

ATTENDANCE, ASSESSMENT AND EVALUATION

Evaluation of written material in this course will be based on the students': depth of engagement with the course activities, questions, and readings; their clarity of thought, intellectual curiosity; and their intellectual generosity, self-reflexiveness, and critical thinking. Assessments will be made using the Faculty of Education 4-level rubric scale.

All assignments are due at the beginning of class on the prescribed date. Grades will be determined by the quality of the assignments as applicable to a professional educator. All written assignments must be typed and all late assignments will receive a late penalty of 10% per calendar day (excluding weekends), unless accompanied by a medical certificate. Anyone requesting an assignment extension for a legitimate reason will be required to complete a late submission contract one week (7 calendar days) in advance of the due date.

Attendance

Active participation is always a critical component of field-based or discussion-oriented courses. There is important learning that takes place through the experiences that lies outside of evaluation practices. The expectation is that your absences should not exceed (for important appointments, etc) 1 class per semester. Missing 30 % of classes in a course during a semester is unacceptable and will result in a failing grade.

RELATED LAKEHEAD UNIVERSITY and FACULTY OF EDUCATION POLICIES

INCOMPLETE STANDING

See: <http://mycoursecalendar.lakeheadu.ca/pg35.html> [V Standing]

FACULTY OF EDUCATION GRADING POLICIES

See: http://education.lakeheadu.ca/undergraduate/uploads/Microsoft_Word_-_Faculty_of_Ed_Grading_Policies.pdf

FACULTY OF EDUCATION ASSESSMENT RUBRIC

	Level 4/5: 80% to 100% (A- to A+) Indicates work that:	Level 3: 70% to 79% (B- to B+) Indicates work that:	Level 2: 60% to 69% (C- to C+) Indicates work that:	Level 1: 50% to 59% (D- to D+) Indicates work that:	Level 0: below 50% (F) Indicates work that:
Quality	Is exceptional, exemplary, complete, thorough, and comprehensive.	Is complete, thorough, and comprehensive.	Is mainly complete - although not consistent in thoroughness and comprehensiveness, it is nonetheless satisfactory.	Is incomplete or inconsistent in thoroughness and comprehensiveness; only marginally satisfactory.	Is incomplete and, therefore, unsatisfactory.
Content	Demonstrates a superb and comprehensive understanding of content, literature, and research -- shows a consistent application of a high level of critical scrutiny to the subject matter, texts, and discussions.	Demonstrates a comprehensive understanding of content, literature, and research -- shows a regular application of critical scrutiny to the subject matter, texts, and discussions.	Demonstrates a satisfactory understanding of content, literature and research -- shows occasional critical scrutiny re subject matter, texts, and discussions.	Demonstrates limited understanding of the content, literature, research, subject matter, and texts.	Demonstrates insufficient understanding of the content, literature, and research, subject matter, and texts.
Expression	Demonstrates exceptional ability to integrate and articulate ideas persuasively and fluently; exceptional clarity in written and/or oral language.	Demonstrates ability to integrate and articulate ideas; shows a reasonable written and/or oral mastery of language.	Demonstrates some ability to integrate and express ideas; satisfactory written and/or oral language.	Demonstrates limited ability to integrate and express ideas; marginal written and/or oral language.	Demonstrates insufficient ability to integrate and express ideas; unsatisfactory written and/or oral language.
Level of Engagement	Demonstrates a level of personal engagement, reflection, and self-initiation, which exceeds expectations.	Demonstrates personal engagement and self-initiation, and meets expectations.	Suggests some personal engagement and self-initiation, and meets most expectations.	Suggests minimal engagement and barely meets expectations.	Suggests insufficient engagement.
Expectation	Is so outstanding that work goes well beyond expectations.	Is good or very good -- of a high standard met by many Education students.	Is satisfactory of a standard met by many Education students.	Is barely acceptable- attained by a few Education students whose difficulties /distractions interrupted performance.	Does not meet even the basic requirements.

“All things that represent life at its most vital and wild wiggle. Words wiggle into metaphor; sperm wiggles; dancing and jokes and giggling wiggle; the shape and character of tumultuous life is a wiggling one” (Jay Griffiths, (2006). Wild: An Elemental Journey. p. 66). The same is true of education; so, this course will wiggle, too. Effective August 31, 2011

SYLLABUS

Week One: September 2. Introduction. OE3

Initiative tasks
Trip Planning

Week Two: Field Trip. September 9, 10, 11.

Introduce journal making.

Creative journaling

Hammond, B. (2002). The creative journal: A powerful tool for learning. *Green Teacher*, 69, 34-38.

Leslie, C.W. & Roth, C.E. (1998). Discovering nature journaling. In *Nature journaling: Learning to observe and connect with the world around you* (pp. 3-15). Pownal, Vt: Storey Books.

Hinchman, H. (1997). *A trail through leaves: The journal as a path to place* (pp. 17-21). New York: W.W. Norton & Company.

Natural History I

Menzies, H. (2005). The seedlings mattered. In Peggy Tripp & Linda Muzzin (Eds), *Teaching as activism: Equity meets environmentalism*, pp. 25-33. McGill-Queen's University Press.

Fawcett, L. (2005). Bioregional teaching: How to climb, eat, fall and learn from porcupines. In Peggy Tripp & Linda Muzzin (Eds), *Teaching as activism: Equity meets environmentalism*, pp. 35-45. McGill-Queen's University Press.

Week Three: September 16. Local field trip. Destination TBA.

Cultural Assumptions I

Evernden, N. (1993). *The Natural Alien*. Toronto: University of Toronto Press. Chapter 1

Creative Journal making

Week Four: September 23. Local field trip. Destination TBA.

Cultural Assumptions II

Evernden, N. (1993). *The Natural Alien*. Toronto: University of Toronto Press. Chapter 2

Trip Planning

An Introduction to Lesson/Unit planning

Week Five: Field Trip. September 30, October 1, 2. Departure time to be determined.

Lessons/Examine activities from:

Brooks, K. & McIlffaterick, E. (2003). *The Deep Ecological Handbook*. Thunder Bay: Lakehead University.

Cornell, J. (1979). *Sharing Nature with Children*. Nevada City, CA: Dawn Publications.

Natural History II

Jardine, D. (1998). Birding lessons and the teachings of cicadas. *Canadian Journal of Environmental Education*, 3, 92-99.

Bell, A. Natural history from a learner's perspective. *Canadian Journal of Environmental Education*, 2, 132-144.

Week Six: October 7.

Project WILD workshop

This will be a long session. Perhaps we can conclude with an informal social session—To be discussed.

Week Seven: October 14. **No Class Scheduled**

Week Eight: October 21.

Curriculum Critique workshop

Eisner, E. (1985). The three curricula that all schools teach. In *The Educational Imagination*, 2nd Ed., pp. 87-107. New York: Macmillan.

Jickling, Bob, Lotz-Sisitka, Heila, O'Donoghue, Rob, Ogbuigwe, Akpeizi. (2006). *Environmental Education, Ethics, and Action: A Workbook to Get Started*. Nairobi: UNEP. Pages 4-11.

Bring sample curricula

Creative Journal assignment due.

Week Nine: October 28.

Share critiques, debrief.

Jickling, Bob. (2009). Sitting on an old grey stone: Meditations on emotional understanding. In: McKenzie, M., Bai, H., Hart, P., Jickling, B. (Eds.) *Fields of green: Restorying culture, environment, and education* (pp. 163-173). Cresskill, NJ: Hampton Press.

Greenwood, D. (2009). Chocolate, Place, and a Pedagogy for Consumer Privilege. In J. Sandlin & P. McClaren (Eds.), *Critical pedagogies of consumption: Education in the shadow of the "Shopocalypse"* (pp. 193-200). N. Y.: Routledge.

Celebrate the end of the first semester.

Curriculum critique assignment due.

Week Ten: January 6.

Weston, A. (1994). *Back to Earth: Tomorrow's Environmentalism*. Philadelphia: Temple University. Chapters 1, 2, 3. Snow art Video.

Making snow art. Dress very warmly. Bring a shovel.

Week Eleven: January 13.

Introduce community mapping project: Identify special places

Reimagining possibilities Introduction

Profeit-LeBlanc, L. (1996). Transferring wisdom through storytelling. In B. Jickling (ed.), *A colloquium on environment, ethics, and education*. (pp. 14-19). Whitehorse: Yukon College.

Wren, L., Jackson, M., Morris, H., Geddes, C., Tlen, D., Kassi, N. (1996). In a panel discussion: What is a good way to teach children and young adults to respect the land? In B. Jickling (ed.), *A colloquium on environment, ethics, and education*. (pp. 32-48). Whitehorse: Yukon College.

Related activity: Dress very warmly!

Week Twelve: January 20.

Weston, A. (1994). *Back to Earth: Tomorrow's Environmentalism*. Philadelphia: Temple University. Chapters 4, 5.

Mapping project. Dress very warmly.

Prepare Base Map, Identify special places

Trip Planning

Week Thirteen: January 27. **No Class. Building Futures Workshop**

Week Fourteen: February 3.

Weston, A. (1994). *Back to Earth: Tomorrow's Environmentalism*. Philadelphia: Temple University. Chapters 4, 5.
Jickling, Bob, Lotz-Sisitka, Heila, O'Donoghue, Rob, Ogbuigwe. Akpeizi. (2006). *Environmental Education, Ethics, and Action: A Workbook to Get Started*. Nairobi: UNEP. Pages 12–15 and 29-34.
Jickling, Bob. (2008). Privileging prospecting, staking and mining is a breach of trust! *Yukon News*, January 11, 2008.

Self-Validating Reduction, Self-Validating Invitation Workshop
Introduce Re-Imagining the World/ Self-Validating Invitation Assignment
Identify Self validating reduction sites on campus.
Add Self-Validating Reduction Sites to Map
Prepare for field trip.

Week Fifteen: **Field Trip: February 10, 11, February 12.**

In Class: Self-validating invitation exercise.

Depart for field trip at 3:00 pm.

Kingfisher Lake Outdoor Education Centre.

Reimagining winter

Bastedo, J. (2003). Being snow. In *Falling for Snow: A naturalist's journey into the world of winter* (pp. 39-69). Calgary: Red Deer Press.

Activities from: *Below Zero*

Natural History II

McLean, S. (1998). Burd. In *Home from the Vinyl Café: A year of stories* (pp. 81-97). Toronto: Penguin.

Jardine, D. (1998). Birding lessons and the teachings of cicadas. *Canadian Journal of Environmental Education*, 3, 92-99.

Week Sixteen: February 17.

Quiz

Complete map

Week Seventeen: February 24.

Teaching about Place

Curthoys, L. (2007). Finding a place of one's own: Reflections on teaching with and in place. *Canadian Journal of Environmental Education*, 12, 68-79.

Greenwood, D. (2010). Why Place Matters: Environment, Culture, and Education. In S. Tozer, B. Gallegos, A. Henry, M. B. Greiner & P. Groves-Price (Eds.), *Handbook of Research in the Social Foundations of Education*. New York: Routledge.

Week Eighteen: March 2.

Reimagining the world assignment/ Self-validating invitation assignment due.

Culminating activity: Share final assignments

Course Celebration

March 3: Sleeping Giant Loppet

This is not a course activity. But, in the past some have enjoyed working towards this as another culminating activity.

For Consideration In January and February

Thunder Bay Winter Birds

Northern Goshawk
Spruce Grouse
Ruffed Grouse
Great Grey Owl
Great Horned Owl
Hairy Woodpecker
Downy Woodpecker
Pileated Woodpecker
Blue Jay
Gray Jay
Common Raven
Black-capped Chickadee

Boreal Chickadee
Red-breasted Nuthatch
Rose-breasted Grosbeak
Slate-coloured Junco
Common Grackle
Evening Grosbeak
Pine Grosbeak
Purple Finch
Common Redpoll
Pine Siskin
American Goldfinch

This list won't cover every bird that might turn up in our area—feel free to add other possibilities. But it isn't a bad list to work from as an experiment in learning a little more about the boreal forest—in the spirit of Leesa Fawcett's wish that someone would have taught her about porcupines, or something from the natural world.

So, thinking of this as an experiment, imagine ways that you can become more engaged with learning winter birds. Perhaps find locations of some feeders in your neighbourhood? Map bird sightings on your community map? Compare sighting locations with habitat types? What else can you do?

Finally, try to come up with one story about one of these birds that you can share at Kingfisher. It can be learned through natural history literature—including bird books—and/or it can have a personal component.

Finally, as an experiment, I'd like to develop a collective handbook for these birds with one person responsible for each bird. In addition to finding a colour picture (flickr site perhaps), and identifying features, try to include one good story. Please limit your handbook entry to one page and prepare one colour copy for inclusion in a binder. Also, we will work towards producing an collective electronic version.

To make collation of the final handbook a little easier please:

- Use a 12-point Times font,
- Left justify,
- Include a picture
- Include the following headings: Name of bird, name of author, description, identifying features, habitat, feeding, sound, story, references