

Environmental Education for Teachers - EDUC 5236 (2 credits)
Spring Semester 2004 - Tuesdays 3- 5pm SpHC 119

Instructors

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Course Description:

This course is designed to introduce participants to environmental education with hands-on/minds on experiences, with an emphasis on using the outdoor winter environment as a classroom for K 12 students in a formal setting. Additional experiences will focus on exploring, experiencing and adapting environmental education curriculum materials and resources in a winter setting. The emphasis will be on curriculum materials and activities that can be used by teachers in settings at or near their schools. Cooperative group and whole group discussions will also be used to explore readings about various aspects of environmental education.

Goals: This course will help the participants to:

- develop a broad understanding of environmental education.
- practice the process of integrating environmental education throughout various disciplines.
- learn about resources which can assist in teaching e.e. including curricula, agencies, grants, and technology
- gain an understanding of basic winter ecology, including interrelationships of social and natural systems through environmental education activities
- discover and participate in winter activities which are practical and appropriate for a given age level

Books, Supplies, and Fees:

Beyond Ecophobia by David Sobel

No other text is required for this course. However, each student will be responsible for reporting on readings that will be assigned. The readings will be available on-line or from the instructor.

Grading:

Grading will be done on a contract basis. All course work must meet instructor & university standards for quality and be completed by the dates noted below. Assignments that do not meet university standards will be returned with comments and the student will be responsible for revising and resubmitting them. The goal of this is to promote quality products. The criteria are as follows:

B

1. Attend all class sessions: participate in all activities and discussions and complete all assignments.
2. Complete readings and present verbal summaries and critiques of the readings to your cooperative groups. (Due throughout semester-see agenda/assignments)
3. Share an oral story that helps explain the natural world with the rest of the group. The story should have a specific cultural origin. (Do this on the Laurentian Weekend - Friday, Feb. 21)

4. Review and bring one e.e. resource where you will verbally review this resource for the rest of the class. Feb. 10
5. Prepare and present 3 lessons:
 - At Laurentian: Prepare and present a mini-lesson that is conducted, at least partially, outdoors (no more than 45 minutes) using the winter environment as a setting for the lesson – draft lesson plan due February 17, presentation due February 20-21.
 - Teach a local school group an e.e. lesson. You set this up. We can help, if necessary, finding a group. You may team teach. Turn in lesson plan a week before teaching the lesson and then turn in an evaluation of the lesson on or before April 20.
 - Teach a lesson to the class relating to age/grade level appropriate environmental education. Dates will be assigned..
6. Spend six hours observing or teaching in a classroom (K-12) that integrates environmental education. Keep a journal of your experience that details what you have learned and evaluated. Journal due March 30.

A

1. Meet the criteria for a grade of “B,” plus:
2. Write a summary application paper that synthesizes information from 2 journal articles. Articles must relate to using the outdoors as an effective teaching environment for schools. This paper should be 3-5 pages in length with approximately 1/2 a summarization and 1/2 how you could implement what you learned. Cite references in the A.P.A. format. Note: a journal is profession based whose articles are peer reviewed. Due on or before April 27.

EXTRA CREDIT

You may earn up to 1/2 grade of extra credit by participating in a conference related to teaching in a formal setting. Examples include:

- National Service Learning Conference
- Minnesota Science Teachers Convention
- Minnesota Association for Environmental Education
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Tentative Agenda (See attached tentative agenda in columns)

E.E. For Teachers Weekend Outing
To Laurentian Environmental Center February 20-21

The lessons you will teach should be geared toward your peer audience, so they can build and learn about lessons and activities for the winter environment. Often lessons that were developed for younger ages can easily be adapted for college age. Remember that hands-on, active oriented lessons are effective ways for learning at any age. We are tight on time, so you have at most 40 minutes for your lesson. Each lesson MUST incorporate the winter environment.

Bits on the ecology around Laurentian: on a lake, early growth aspen/birch/red maple forest, wide variety of wildlife (birds, mammals) that often leave tracks or signs, near historical wild ricing lakes, moraine country, has open playing fields, active logging/forest management.

Friday, February 20

- 4pm • Leave UMD Campus from Ordean Court - caravan together
- 6:00 - arrive, find your lodging, learn where rooms are at, etc.
- 6:15 Dinner in the Dining Hall
- 7:00 Classroom
 - Various non-formal facilities and their role in environmental education
 - Jigsaw readings on perceptions of winter Part 1
- 8:00 Storytelling - an interdisciplinary tool - students tell a story
- 9:20 Optional night predator/prey game

Saturday, February 21

- 7:30 am - Breakfast in the dining center
- 8 am Jigsaw Readings: Perceptions of winter Part 2

	NAME 1	NAME 2
9 - 9:45 Motivational Strategies	_____	_____
- children, adults, seniors,...		
- getting participants excited about what you have to offer		
9:45 - 10:30 - Student presented lesson	_____	_____
10:30 - 11:15 - Student presented lesson	_____	_____
11:15 - Noon - Student presented lesson	_____	_____
Noon - 1:30 Break & Lunch		
1:30- 2:15 - Student presented lesson	_____	_____
2:15 - 3:00 - Student presented lesson	_____	_____
3:00 Break - Reflect, enjoy the area, explore, ski, snowshoe		
4:00 Weekend wrap-up & discussion		
Back in Duluth by 6pm		

Equipment List - Environmental Education for Teachers: WINTER

- The first thing a person should remember when venturing out into the woods is: THINK SIMPLE. The simpler you make things, the better.
- The second idea is just as important: BE COMFORTABLE. The best outdoors people go into the woods with a few simple implements, yet do not plan fighting it out against nature. Rather, they flow with nature.
- The key to staying warm and dry in the winter is to dress in layers. Thus, while on the outside you can adjust your insulative layer to accommodate varying temperatures and changes in physical activity. Think wool - it insulates when wet.

FURNISHED:

___ Kitchen and eating utensils ___ Lodging ___ Food ___ Some skis

YOU BRING:

FOOTWEAR:

- ___ 4 to 6 Pairs Socks: must be wool or other synthetic fibers - no cotton!
- ___ Gaiters - Leggings worn over the top of the boot to protect from snow (optional)
- ___ Insulated camp boots (1 pr) - ie. sorels, iceman, mukluks, etc.
- ___ Ski boots (1 pr) - Should fit comfortably with two pairs of heavy socks.
- ___ Vapor barrier baggies (ie bread bags) or socks & foot powder (optional)
- ___ Polypropylene sock liners - help keep feet dry

LOWER BODY CLOTHING:

- ___ Regular underwear - nylon shorts work - cotton is bad
- ___ Long underwear - mid-weight - wool, polypro, thermax, capilene.
- ___ Wool pants (2 pr: 1 light, 1 heavy)
- ___ Wind pants - Nylon (not waterproof) to fit over wool or pile pants (optional).

UPPER BODY CLOTHING:

- ___ Winter coat - covers other layers loosely

Insulation layers: You will have two insulation layers that should fit comfortably over each other. Combinations of the following are acceptable:

- ___ Wool sweater - must extend below the hips
- ___ Light wool shirt
- ___ Pile sweater or jacket
- ___ Long underwear top - wool, polypro, thermax, capilene
- ___ Vest - synthetic, not down, is recommended

HAND CLOTHING:

- ___ "Choppers" or other mittens (2 pr) - shell with wool or pile liners are best
- ___ Polypro glove liners

HEAD CLOTHING - one or more of the following:

- ___ Wool stocking hat - balaclava is also good
- ___ Scarf or neck gaiter - should be wool
- ___ Insulated hood

SLEEPING GEAR:

- ___ Sleeping bag to use in bunk bed
- ___ Pillow (optional)

MISCELLANEOUS:

- ___ Sunglasses - good quality is necessary
- ___ Water bottle (1 qt.) - wide mouth nalgene plastic or other
- ___ Toiletries: toothbrush & paste, etc.
- ___ Day pack (optional)

SKIING or SNOWSHOEING EQUIPMENT:

- ___ Skis and bindings
- ___ Ski poles
- ___ Snowshoes

OPTIONAL GEAR:

- ___ Camera and film
- ___ Head lamp or flashlight
- ___ Journal

DO NOT BRING: Radios, junk food, drugs, or alcohol

NOTE: The U.M.D. Kirby Games and Outing Center rents a variety of winter outdoor equipment. For more information, call (218) 726-8734.