

Fall 2009 FIELD INVESTIGATIONS AND TEACHING: A PRACTICUM

*A field semester course offering of the Audubon Center,
Northland College, Dubuque University, and Carroll College*

September 9 - December 12, 2009

\$6550 for the semester, food, lodging, and instruction

Philosophy: It is our belief that the best way for students to acquire knowledge and prepare for challenges in their life and work is to give them real world situations, to guide and facilitate learning, and to allow them a chance to experience success. This belief takes form when we apply the EIC (Environment as an Integrating Context) approach that focuses on project-based, inquiry-style learning that is student-centered and ends in action steps.

The process provides both knowledge and the skills to apply the knowledge. It gives the students an investment in their learning – it provides them with a chance to demonstrate their capabilities in planning, experimentation, and action steps. We hope that we will be creating graduates with skills and leadership for the next steps in their life.

Module 1 – Understanding and managing the natural world for all species.



Utilizing an interdisciplinary approach, students will investigate the four major biomes of the North Woods: deciduous forest, coniferous forest, prairie, and aquatic; and the intersection of human history, current issues and ideas.

Exact field investigations will be student driven by background and interests. Students will learn and practice a process of identifying social and natural contexts of an area, focusing on a particular site, issue, or idea, developing organizing questions, determining resource elements, and finally determining the supporting questions they want to investigate.

In this context the students will examine certified forest, county, state and national forest management practices, work with the certifying agencies (Forest Stewardship Council and Institute of Agriculture and Trade Policy) and create a management plan for the Audubon Center property which increases biodiversity and reflects on the historic natural landscape.

It will be an active month of learning the natural landscape, native forest communities, researching possibilities and talking with a variety of experts to gain a variety of opinions. There will be a trip to the canoe country or one of the national forest areas where forest history will be explored, and various other forests, parks, refuges and agencies.

Module 2 - Work with students from varied backgrounds in teaching settings.

Students will learn various lessons which they will teach and evaluate. Evaluations will be done by peers and instructors and students will have opportunities to revise and teach again. Students will also develop their own lessons to teach based upon their field investigations. Student work will include active class participation, documentation of the class experiences in the form of a journal, and writing projects coordinated with the writing instructor.



Real opportunities to impart knowledge, explore outdoor curriculum and test theories of learning and leadership. There will be multiple elementary schools involved in this month of field experiences. The students will observe, critique, and lead classes.

Module 3 – Energy education and new challenges

Students will learn various renewable energy technologies including wind, solar photovoltaic, solar hot water, passive solar, ground source heating and cooling, biomass, biofuels and others. Sustainable agricultural and land practices and cutting edge ideas will be investigated and explored.



- Apply for sustainable energy and land management grants
- Create sustainable energy and land use curriculum
- Work with a charter school to develop learning materials, curriculums and field experiences.
- Visit agencies, organizations and companies demonstrating renewable energy and sustainable practices
- Create a renewable energy plan for the Audubon Center of the North Woods
- Plan the final experience – a field study of the Badlands and Black Hills

Module 4 – A two-week field expedition.

The course culminates with a two week canoe trip through the Badlands and Black Hills regions. Conduct the final trip to observe plant and animal communities, geology and experience the local culture.



- Pack and prepare for trip
- Travel and collect data
- Research one specific focus
- Present findings upon return

Instructors –

Bryan Wood: Co-Director of the Audubon Center, instructor in Northland College undergraduate program

Jessica Harguth: College staff at the Audubon Center

Katie Kleese: Co-Director of the Audubon Center, K-12 and charter school operations

The teaching staff of the Audubon Center

Don Arnosti: Institute of Agriculture and Trade Policy

Steve Dess: Learning for Leadership Charter School director, founder of the Minnesota Association of Charter Schools

Additional instruction from individuals involved in partner programs and schools

Text Books include the following (text book fee - \$150):

The Forest for the Trees, Jeff Forester, Minnesota Historical Press

Native Plant Communities of Minnesota, The Laurentian Mixed Forest Province, The Eastern Broadleaf Forest, and Prairie Parkland and Tallgrass Aspen Parklands Province. Minnesota DNR

One book on sustainable energy (to be decided)

One book on Environmental Education (to be decided)

The Audubon Center of the North Woods

The Audubon Center is a *RESIDENTIAL ENVIRONMENTAL LEARNING CENTER* (RELC), a wildlife rehabilitation facility, and retreat center located in east-central Minnesota on the shores of Grindstone Lake. Our diverse 535 acre sanctuary includes a variety of habitats, including old-growth red and white pines, hardwood forests, restored wetlands and prairies. We offer a great variety of environmental learning experiences for people of all ages, with programming in natural history and science, team-building, adventure programming, and outdoor/environmental education.

Our center features a mixture of historic as well as newly constructed facilities that can accommodate up to 150 participants. Our participants have the opportunity to experience a wide range of learning environments including our wildlife barn, yurt, log cabin, formal science classroom, and of course, the great outdoors!

Lodging for the college programs is in the historic Schwyzer Lodge. Rooms sleep two to six people and there are shared bathrooms for both men and women as well as a classroom discussions will be held. You will need to bring bedding for a twin bed and your own towels and toiletries. You will have roommates in the living situation.

Meals are served in the main dining room and are often with other groups that are in attendance. When programs are in session you are always welcome to join the groups for meals, but on off days, if there is no other group, you will be responsible for your own food. We will accommodate menu requests for vegetarian and vegan options, but must be consulted on other special food needs. Our kitchen is quite skilled, but must prepare food to satisfy the entire group so there are limitations.

Computers are available for you to use as is wireless internet, but we recommend that you bring your own laptop if you have it. There will be a \$150 fee for books, a journal, and handouts. You are responsible for bringing your own pens, notebooks and other study aids. We recommend that you bring cameras – especially digital, compass and/or GPS units, day packs, head lamps, and other items that will be useable in outdoor studies. You will be outside more than inside.

Off campus trips are included in the program, but not all travel meals. Be prepared to pay for 12 meals on the road as we explore Lake Superior, the North Woods, the Twin Cities, and the Black Hills and Badlands. We have tents, sleeping pads and group camping gear at the Center. You are encouraged to bring your own backpack, and will be responsible for your own sleeping bag. Remember that the class will include sleeping out in December and that warm sleeping bags are a must. The South Dakota trip will be a mix of indoor lodging and camping.

EIC -- Using the Environment as an Integrating Context for Learning.

EIC designates a pedagogy that employs natural and socio-cultural environments as the context for learning while taking into account the "best practices" of successful educators.

EIC-based learning is not primarily focused on learning about the environment nor is it limited to developing environmental awareness. It is about using the class surroundings and community as a framework within which students can construct their own learning, facilitated by instructors who can augment the learning process with key information, contacts, and training that will allow the students to succeed.

EIC programs use:

- interdisciplinary integration of subject matter that breaks down traditional boundaries between disciplines;
- problem and issue-based learning experiences that offer both hands-on and minds-on experiences;
- teams of instructors – including key outside contacts - collaborating to connect together instruction and learning;
- learner-centered, constructivist approaches adapted to the needs and unique abilities of individual students;
- combinations of independent and cooperative learning; and, the environment, local natural and community surroundings, as the "venue" for connecting together these proven pedagogies, to improve teaching and learning.
- www.seer.org

For more information contact: Bryan Wood, bwood@audubon-center.org and visit our website www.audubon-center.org

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