

## FIELD INTERPRETIVE TECHNIQUES I

EnEd 3341 (3 credits)

Fall 2014 - Wednesdays 2- 5 pm

Sports and Health Center Room 9A

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Course Resources on Moodle ([ay14.moodle.umn.edu](http://ay14.moodle.umn.edu))

*"If you don't know where you are, you don't know who you are."* – Wendell Berry

*"We believe that it is vitally important for outdoor educators to understand and foster a sense of connection with the places where they live, learn and teach. These outdoor places are much more than sites for human activity. They make us and we make them. They are the sources of our identities."* Wattachow & Brown, 2011

### Course Description:

This course is designed to provide the foundational skills, techniques, and knowledge involved in interpreting the natural history of the autumn and early winter environment, on and around the North Shore of Lake Superior and northern Minnesota. This course will cover basic geology, geomorphology, tree & plant identification, raptor identification, cultural history, and interpretive skills.

Goals: This course will help the participants to:

- A. **Effectively use field guide resources to identify and understand natural resources.**
- B. **Interpret general landforms of Minnesota using appropriate terminology and correct description of that landform.**
- C. **Identify migrating raptors and describe their fundamental ecology (such as life history, nesting, feeding, and behavior).**
- D. **Discover resources which will aid in interpreting the natural and cultural environment**
- E. **Learn how to effectively use field guides as tools for understanding**
- F. **Implement fundamentals of field interpretive methods such as site assessment, lesson plan construction, teaching, and use of equipment.**
- G. **Explore the "stories" of various cultural groups in Northeastern Minnesota**

### Tentative Schedule

#### September 3

##### In Classroom & Bagley Classroom

- Introductions, Background and expectations from the course, Explanation of syllabus itinerary, coursework, grading
- What is interpretation? How is it used? Informal interpretation techniques, principles of interpretation
- Information about volunteer assignment

##### Homework after this class:

- Read in Backyard Almanac September 1-10 (on Moodle)
- Familiarize yourself with the major groups of raptors in your field guide to birds - turn in a write up of the general characteristics in identifying the following groups: accipiters, falcons, buteos, eagles, and vultures – typed
- Begin phenology journal entries
- Read Introduction and First Principle in Gifts of Interpretation (GOI)
- Attend HRBO or GLA training

#### September 10

##### Turn in:

- Write up of the general characteristics in identifying hawks (Moodle assignment)

##### At Hawk Ridge - meet at north side of SpHC (van)

- Sign up for Hawk Ridge or Aquarium
- Discussion of readings

- Raptor identification and ecology
- Fundamentals of bird identification, How to use a bird field guide
- Exotics topic assigned - Work on Lesson Plan

Homework after this class:

- Research your assigned hawk - your job will be to teach your small group about that hawk - description, migration patterns, habitat, what it feeds on, ... - use props - you will turn in a typed outline of your information
- Read Second Principle in GOI
- Phenology journal entries

**September 17**

Turn in:

- Outline of what you will teach in your small group

At Hawk Ridge - meet at north side of SpHC (van)

- Identification of hawks and explanation of ecology of specific hawks: Peer teaching
- Discussion of Backyard Almanac reading, phenology journal
- Tree identification - trees with leaves - using the tree guide

Homework after this class:

- Phenology journal entries
- Read Third Principle in GOI
- Read up to Sept 30 in Backyard Almanac

**September 24**

Turn in:

Draft exotics lesson plan via email attachment

At Park Point - meet at north side of SpHC (van)

- Dune ecology & origins
- Plants/trees, wildlife, history, migrating birds

Homework after this class:

- Finalize exotic specie lesson plan
- Phenology journal entries
- Read Fourth Principle in GOI

**October 1**

Turn in:

Final lesson plan on exotic specie presentation

At Bagley Nature Area - meet at Bagley at 2:10

• Each person will teach about the natural history of one assigned exotic plant or animal (approx 10 min.)

Homework after this class:

- Read “Invader from the Sea” and “Survivors and Strangers” in The Superior North
- Read Fifth Principle in GOI
- Read up to Oct. 15 in Backyard Almanac

**October 8**

Turn in:

- 1<sup>st</sup> half Phenology Journal

At Olson’s Bog - meet at north side of SpHC (van) - you need to have tall rubber boots or waders

• Bog ecology:

Origin of bogs, Identification of trees & shrubs of bog wetlands

• Review for mid-term

Homework after this class:

- Phenology journal entries
- Read Sixth Principle in GOI
- Prepare for mid-term

## October 15

### Turn In:

- Draft Lesson Plan for Cultural History Teaching Day via email attachment (one lesson plan per group)

### At Bagley Nature Area - meet at Bagley at 2:10

- Mid-term exam - field and classroom

### Homework after this class:

- Read Seventh Principle in GOI

## October 23

### In SpHC 9

- Final Prep for Cultural Teaching – brief check in, then plan on going out to teaching site

### Homework after this class:

- read up to Oct. 30 in Backyard Almanac
- phenology journal entries
- Read “Early Americans” and “New Adventurers” in The Superior North Shore
- Read Eighth Principle in GOI

**Saturday, October 25** (7:30am-5pm) – Cultural History Day – St. Louis River/Jay Cooke State Park - 7am-5pm - Teaching peers about cultural history

### Turn In: Final Lesson Plan

## October 29

### Drive to beaver pond – *Location and transport to be determined- rubber boots are necessary*

- Beaver ecology

### Homework after this class:

- Read “The Antlered Mammals” in The Superior North Shore
- Read Ninth Principle in GOI

## November 5

### At Leif Erickson Park - meet at north side of SpHC (van)

- Geology of Duluth and Northeastern Minnesota: Volcanic activity
- Starting of a rock collection that can be used as a teaching tool

### Homework after this class:

- Phenology journal entries
- Read up to Nov. 15 in Backyard Almanac
- Read “Genesis by Fire” in The Superior North Shore
- Read Tenth Principle in GOI

## November 12

### Turn in:

- Hawk Ridge volunteers turn in critique

### At Lester Park - meet at north side of SpHC (van)

- Geology of Duluth/Northeastern Minn.: Glaciers to present time

### Homework after this class:

- Read up to Nov. 15 in Backyard Almanac
- Read Eleventh Principle in GOI
- “Iron Mountains and Other Lodes” in The Superior North Shore (become familiar with the location of some of the places referred to in this chapter)

## November 19

### In Bagley Classroom

- The process of interpretation from a Minnesota D.N.R. perspective

### Homework after this class:

- Read up to Nov. 30 in Backyard Almanac
- Read Twelfth & Thirteenth Principle in GOI

## November 26 - No Class

### December 3

#### Turn in:

- Final Phenology journal

#### In Bagley Classroom

- Interpretation: Tying it all together

#### Homework after this class:

- Read Fourteenth and Fifteenth Principle in GOI

### December 10

#### Turn in:

- Extra Credit work
- Great Lakes Aquarium volunteers turn in critique

#### At Bagley Nature Area

- Final exam review

#### Homework after this class:

- Read up to Dec. 30 in Backyard Almanac

## Monday, December 15, 9am-12pm (3 Hour) - meet at north side of SpHC (car pool)

- Final Assessment - outside and inside

### Books, Supplies, and Fees:

#### Required text:

- Field Guide to the Birds of North America. National Geographic Society. Washington, D.C.
- OR** • Peterson, R.T. A field guide to the birds. Houghton-Mifflin Co. Boston, MA.
- Beck, L. & Cable, T. (2011) The Gifts of Interpretation. Sagamore Publishing, Urbana, IL.
- The Backyard Almanac (2014) Available electronically from [www.birdnerdz.net](http://www.birdnerdz.net)
- Rathke, David M. (1996). Minnesota trees. Minnesota Extension Service. St. Paul, MN.  
*Note that this is now out of print. Strive to get a copy for yourself. We'll have some class copies.*
- Waters, Thomas (1987). The Superior North Shore. University of Minnesota Press. Minneapolis, MN. NOTE: Since this book is out of print, this is only available on-line through sources such as half.com, amazon.com, abebooks.com (NOTE: *One copy is on 2 HOUR RESERVE in the UMD Library*)

#### Supplies:

Students will need to have a pair of binoculars, a hand lens, and proper clothing to go out in **all** conditions. If you don't have binocs, get them or rent them from the RSOP Rental Center. Buy a hand lens from the Bookstore. If you need rain gear, buy it or rent from RSOP. Binocs can also be rented from the RSOP.

Fees: The only additional fees for this class are associated with obtaining proper supplies and assembling materials for lessons.

### **ALWAYS BRING YOUR FIELD GUIDES AND PROPER CLOTHING FOR EACH CLASS SESSION**

#### Grading

Attendance is very important. You are responsible for all information given both indoors and outside. Points will be given based on the following criteria:

- For written work, effort and quality are the criteria - all work, other than the Phenology Journal and the worksheets, must be typed and follow the given guidelines, must have all components assigned (ie. lesson plans must have each portion), and be well written with appropriate effort. We can tell if you have put effort into your work.
- For participation, you will be awarded 6 points per class period for which you are fully participating.

If you show up unprepared for the conditions or activity (ie. you didn't bring boots, you forgot binoculars,...), you will lose points for that day.

- For teaching, you will be given points based on 2 things: 1) you do the teaching & 2) you teach what was assigned. Don't skip a teaching day.
- ALL ASSIGNMENTS MUST BE TURNED IN ON TIME OR YOU WILL LOSE 15% per day late.

Tentative Point Structure:

The Work:	Points Given:
Homework Assignments:	
• Phenology Journal Draft	40
• Phenology Journal Final	30
• Worksheets/write-ups	30
• Lesson plans (2 final, 2 draft)	60
Teaching (2 lessons)	40
Informal Interpretation Project	90
Mid-term Exam	100
Final Exam	100
Class Participation	90
Cultural Teaching Day (lesson & involvement)	60
<b>TOTAL</b>	<b>640</b>

Grading Based on % of Possible Points:

92% - A	90% - A-
82% - B	80% - B-
72% - C	70% - C-
62% - D	52% - F

EXTRA CREDIT You can receive extra credit for participation in activities that complement this course. Each of the below can raise your grade up to 30 points. If you do participate, you will need to summarize what you participated in and what you learned (this should be at least one page long and include activities you participated in and what you learned).. These must be completed on or before December 10. Here are the options:

- Conduct an interpretive hike with a group that is 1 hour or more in length. Turn in a lesson plan and an evaluation of the hike (see Tim for an evaluation form).
- Participate in a professional conference related to interpretation, outdoor education, or environmental education.

Students with Disabilities:

It is the policy and practice of the University of Minnesota Duluth to create inclusive learning environments for all students, including students with disabilities. If there are aspects of this course that result in barriers to your inclusion or your ability to meet course requirements – such as time limited exams, inaccessible web content, or the use of non-captioned videos – please notify the instructor as soon as possible. You are also encouraged to contact the Office of Disability Resources to discuss and arrange reasonable accommodations. Please call 218-726-6130 or visit the DR website at [www.d.umn.edu/access](http://www.d.umn.edu/access) for more information.

Risk Management

Please note: While field experiences are an essential component to outdoor education, we must acknowledge the inherent risk of field program participation. Leaving campus presents risk management concerns, including transportation and field site based dangers. In order to avoid problems and strengthen our risk management awareness, it is each student's responsibility to behave in a manner that promotes personal and group safety. Any questions, concerns, specific medical information, etc. should be directed to the instructor as a part of a shared effort to ensure a safe and optimal learning environment.

## ASSIGNMENTS EXPLAINED

### PHENOLOGY JOURNAL

The purpose of a phenology journal is to get you to observe nature and develop an understanding of natural occurrences as they relate to times throughout the year. Here's how you should do this:

- 1). Observe nature - you may be able to do this from your dining room window during breakfast or get outside and walk and observe what is happening around you.
  - 2). Description: describe what you see as accurately and objectively as possible. What is it? What are its features? What does it do? How does it look, feel, taste, smell, move, sound, behave, etc.?
  - 3). Relationships: Why is it here? Who are its neighbors? How did it get this way?
  - 4). Speculation: What does it have to teach us? How does it speak to the human world? Why does it fascinate or repel me?
  - 5) You need to have at least 4 days per week that have entries
- Please use a spiral-type notebook to record your observations and include drawings where appropriate. "Write in the Rain" notebooks are great.
  - A "to-date" journal must be turned in on October 8.
  - Final Journal is due on December 3

### PEER TEACHING

The emphasis in this class is on content, though a portion involves teaching. You will be responsible for being involved in teaching three lessons.

#### FIRST LESSON

The purpose of this is to practice giving information to others. Incorporate ways that would make this information about a hawk interesting. Do on Sept. 17.

#### EXOTICS LESSON

You will be teaching peers (1/2 of the class) about one of the exotic plants or animals in this area. You will have 10-15 minutes to do this. Do this on October 1

#### TEAM TEACHING

In teams you will be assigned specific aspects of the cultural history of Northern Minnesota. Once assigned, you will work together to brainstorm, research the components to the topic, develop a lesson plan, and practice. You then will co-teach on our Saturday outing. Once again, make it fun and interactive - we want your peers to learn this stuff. Turn in a lesson plan from the group (ie. one lesson plan per group). Teach Oct. 25. *Details are on a separate sheet.*

### INFORMAL INTERPRETATION

This assignment has been created to give you an opportunity to accomplish work that will be used in a real world setting. Details are on a separate sheet.

### SUBMITTING YOUR WORK

All work must be submitted electronically via email to Tim's email – either a Word document or a google doc.