Winter Travel and Living Skills  
OED 332

**Time:**  
WF Noon-5:00 and other times (including some weekend days) as needed for expeditions and other field experiences

**Textbook:**  
On-line (See Class Readings below)

**Location:**  
Wheeler 209

**Instructors:**  
Elizabeth K. Andre  
Office: Wheeler 313  
Phone: 682-1324 (w)  
Email: eandre@northland.edu  
Office Hours: Mondays, Wednesdays 11 a.m. to Noon, and other times by appointment

Grant White  
Office: Wheeler 312  
Phone: 682-1350  
Email: gwhite@northland.edu

**Website:**  
http://www.northland.edu/oe

**Class Readings:**  

**Writing Help:**  
Northland Writing Lab: Gina Kirsten, Composition Specialist, CSE 222, (715) 682-1341, gkirsten@northland.edu

**Please note:**  
Students in need of academic or medical accommodation should visit the Disabilities Services page of the Northland College web site: http://www.northland.edu/student-life-support-disability.htm,

**Contact:**  
Kathleen Skoraczewski  
Campus Counselor  
Division of Student Life  
Room 202B - Ponzio Campus Center; Ext 1369  
kskoraczewski@northland.edu

**Course Description**  
This course explores the tradition and techniques of winter travel and living. Through both classroom instruction and off-campus experiences, students learn safe, efficient, comfortable, and environmentally-responsible winter travel and living skills.

While the course must meet certain objectives, there exists some flexibility to tailor the class to individual interests. If you would like to incorporate additional topics or perspectives, please discuss with us how the course can better meet your personal educational goals.
**Statement on Attendance**
Due to the experiential nature of this course, it is impossible to compensate for missing class sessions. **Students are expected to attend each session.**

In the event of a pandemic flu outbreak, the health and safety of our community takes precedence over expectations of class attendance. In the event that you or we are sick this semester, we will communicate with you via your official campus e-mail. **You are responsible for checking your campus e-mail regularly.**

**Grading and Assignments**

*Participation (70 points):*
Due to the experiential nature of this course, much of the grading is subjective. To do well in the course, students must attend every session, participate fully and enthusiastically, and take responsibility for learning all the skills covered in the course.

*Research paper, Lesson plan development, and Teaching (30 points):*
Select a relevant course topic; research it, using multiple sources; write a 6–8 page paper; develop a written teaching plan based on the contents of the paper; and teach the lesson to the class. More specific instructions will be provided in class.

The grading scale is as follows:
- **A** = 100 - 94
- **A-** = 93 - 90
- **B+** = 89 - 87
- **B** = 86 - 83
- **B-** = 82 - 80
- **C+** = 79 - 77
- **C** = 76 - 73
- **C-** = 72 - 70
- **D+** = 69 - 67
- **D** = 66 - 63
- **D-** = 62 - 60
- **F** = <60

**Outcomes**
- Students will demonstrate a functional understanding of the physiology of heat production, thermoregulation, and the various categories of cold injury and illness.
- Students will demonstrate the ability to dress appropriately for extended periods of cold exposure and adjust layers as needed.
- Students will demonstrate an ability to understand, recognize, prevent, and treat the various forms of cold injury and illness.
- Students will demonstrate a functional understanding of trail nutrition as it applies to cold climates and be capable of planning trail menus appropriate for multi-day trips, purchasing food, packing it for the trail, and cooking on the trail.
- Students will demonstrate a functional understanding of winter shelters, both tents and snow shelters.
- Students will demonstrate a functional understanding of ice reading and safe ice travel.
- Students will demonstrate a functional understanding of ski base preparation, waxing for grip and glide, and ski care.
- Students will demonstrate correct classical cross country ski technique, appropriate to their learning stage; know how to self-critique at that level; and understand what they will need to work on in order to improve.
**Cellular Phones**
Students will be expected to turn-off cell phones for the duration of each class. Students taking calls or texting during class will be asked to turn-off their phones and deposit them on a table at the front of the room. Refusals will result in an invitation to leave class for the day.

**Computers, Tablets, and Handheld Devices in Class**
While students may use electronic devices to do class-related work during class, non-class related uses will not be tolerated. Students using devices inappropriately will be asked to turn them off.

**Tentative Course Schedule**
This course is extremely weather-dependent. At present, the most your instructors can do is list the topics and activities we hope to include in the course because the weather will determine if, and when, we can do those things. Therefore, this schedule is subject to change on short notice.

On days where we will be outside, please come to class dressed for the conditions and ready to be outside for the duration of the meeting period.

We will ski on Wednesday afternoons (weather-permitting), with the exception of the first Wednesday

**There will be a winter expedition at the Outward Bound School, at Ely, MN, dates to be announced**

**Week 1**
Wednesday 1/9/13
- **Classroom:** Introduction, heat production, heat exchange, heat metabolism, and cold injuries

Friday 1/11/13
- **Outpost:** Fit ski equipment, base repair, glide waxing, grip waxing

**Week 2**
Wednesday 1/16/13
- **Field:** Ski (or films, depending on weather)

Friday 1/18/13
- **Classroom:** Clothing systems: Dressing for the cold (Bring in your gear)

**Week 3**
Wednesday 1/23/13
- **Field:** Ski (or films, depending on weather)

Friday 1/25/13
- Visit the Paralympics World Cup event (Telemark) with Cindy Dillenschneider
**Week 4**
Wednesday 1/30/13
- Field: Ski (or films, depending on weather)

Friday 2/1/12
- Classroom: Winter trail nutrition, menu planning, food packing strategies

**Week 5**
Wednesday 2/6/13
- Field: Ski (or films, depending on weather)

Friday 2/8/13
- Weather dependant: To be announced

**Week 6**
Wednesday 2/13/13
- Field: Ski (or films, depending on weather)

Friday 2/15/13
- Weather dependant: To be announced

**Week 7**
Wednesday 2/20/13
- Field: Ski (or films, depending on weather)

Friday 2/22/13
- Weather dependant: To be announced

Trip: Tuesday afternoon 3/5 - Sunday 10/13. Destination TBD

Possible topics to be covered on subsequent Fridays: in no particular order, depending on weather
- Snowshoe presentation
- Snowshoe day trip
- Quinzee Shelters
- Gordon Giesbrecht Hypothermia videos
- Scott Grinnell: Physics of Heat Exchange and Insulation
- Ice reading in the field—Bad River from GG
- Hot Tent training
- Winter cooking
- Winter shelters

Wednesday 3/13/13 and Friday 3/15/13: Student Oral Presentations of their Research and papers due

I. Course Topics

We will cover the following topics during the course. Due to the synergistic nature of many of these topics, they will not necessarily be covered in the order listed below. This list, however, will provide an overview of the topics and help you organize and reflect on your learning.
Skiing:
  • Waxing
  • Technique

Snowshoeing
  • Shape
  • Kinds

Camping
  • Sleeping
    o Bags/bivies/pads./VBLs
    o Hot water bottles
  • Tents
    o Tarps with snow walls
    o Nylon tents
    o Hot tents
  • Quinzees
    o Water
    o Ice holes
    o Melting snow/ice
    o Purification
  • Cooking
    o Fires
    o Wood stoves

Staying warm
  • Heat generation
    o Food/nutrition
    o Hydration
  • Heat loss
  • Insulation/clothing
  • Hypothermia
  • Frost bite
  • Trench foot
  • Chilblains

Fires
  • Wood selection and harvesting
  • Fire starting
  • Locations
    o Stove
    o Outside
      ▪ Firepan
      ▪ Rotten logs

Ice reading
  • Lakes
  • Rivers
  • Swamps

Travel
  • Navigation
  • Pulks/toboggans
  • Packs
  • Dressing for the trail
- Hydrating (keeping water liquid)

Food and Menu planning
- Nutrition
- Techniques

Miscellaneous
- Fire from ice
- Winter ecology
- Snow typology
- Footwear/VBLs