Course hours: Wednesdays & Fridays noon – 4:50 p.m. and other times (including some weekend days) as needed for expeditions.

Course fee: $350


I. 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.

II. 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.**
Please follow the recommendations from the Centers for Disease Control (CDC) regarding this year’s expected H1N1 outbreak:

*If you are sick, stay home or at your place of residence for at least 24 hours after you no longer have a fever (100 degrees Fahrenheit or 38 degrees Celsius) or signs of a fever (have chills, feel very warm, have a flushed appearance, or are sweating). This should be determined without the use of fever-reducing medications (any medicine that contains ibuprofen or acetaminophen). Staying away from others while sick can prevent others from getting sick too. Ask a roommate, friend, or family member to check up on you and to bring you food and supplies if needed.*

III. 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 we expect you to 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 in addition to the text, write 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:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Score Range</th>
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<tbody>
<tr>
<td>A</td>
<td>100 – 94</td>
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<tr>
<td>A-</td>
<td>93 – 90</td>
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<tr>
<td>B+</td>
<td>89 – 87</td>
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<td>B</td>
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<td>C+</td>
<td>79 – 77</td>
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<tr>
<td>C</td>
<td>76 – 73</td>
</tr>
<tr>
<td>C-</td>
<td>72 – 70</td>
</tr>
</tbody>
</table>

IV. Tentative Course Schedule

We reserve the right to alter this schedule. On days where we will be outside, please come to class dressed for the conditions and ready to be outside for many hours.

Please reserve the mid-session break (March 9-13) for a winter trip. We are still exploring our options, and will consult with you in making the final decisions about timing, duration, and destination.

**Wednesday, January 12**
Classroom: Introduction, heat production, heat exchange, heat metabolism, and cold injuries

**Friday, January 14**
Ski (meet at Outpost): Outfit with gear, base repair, glide waxing, grip waxing

**Wednesday, January 19**
Ski

**Friday, January 21**
Classroom: Gear inventory for the overnight, systems, clothing systems, food/menu planning, snowshoe presentation and outfitting (Outpost)

**Saturday, January 22**
Snowshoe: Star Lake—all day
Wednesday, January 26  
Friday, January 28  
Ski  
Quinzee building-12:00-1:30/Ski Technique Videos-1:30-2:30/Quinzee Building 2:30-4:00

Wednesday, February 2  
Friday, February 4  
Ski  
Gordon Giesbrecht-Hypothermia videos/discussion, (Possible) Scott Grinnell: Physics of Heat Exchange and Insulation—3:00 Wh 209

Wednesday, February 9  
Friday, February 11  
Ski  
Ice Reading in the Field—Bad River from GG

Wednesday, January 16  
Friday, February 18  
Ski

Wednesday, February 23  
Friday, February 25  
Ski

Friday, March 4  
Student Oral Presentations of their Research Papers

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

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

Fires
- Wood selection and harvesting
- Fire starting
- Locations
  - Stove
  - 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