

**Course Code & No. - Section:** PHED 229

**Course Title (Credits):** AIARE Level 1 and Backcountry Skills (2)  
**Term & Year:** Spring / 2014  
**Course Ref. No. (CRN):** 10266 10267 10268 10308

**Instructor:** Daryl Teittinen, and staff  
**Phone(s):** 714-273-4055  
**Email:** dteittinen@sierranevada.edu  
**Office:** TCES 2<sup>nd</sup> Floor  
**Office Hours:** By appointment

**Class Meeting Time:** Fri-Mon, 8-4pm. 1/17-1/20 (sections 1+2),  
2/14-2/17 (sections 3+4)

**Location:** **TCES 215**

**Prerequisites** (from Catalog): NONE  
**Corequisites** (from Catalog): NONE

### **Course Description**

This class includes the nationally recognized AIARE (American Institute for Avalanche Research and Education) Level 1 curriculum, and builds on this foundation with additional backcountry days around the Tahoe Basin. With classroom and field instruction, the course describes a framework for decision making and risk management in avalanche terrain. Successful students will receive an AIARE L1 certificate, followed by close instruction during additional field days. NOTE: The materials fee provides students with a certificate, student manual, and field book.

**FEE: \$125**

### **Student Outcomes**

Upon successful completion of this course, a student will be able to:

1. Recognize, assess, and select appropriate terrain and safe travel techniques in avalanche hazardous conditions.
2. Employ avalanche rescue techniques.
3. Utilize level 1 avalanche skills to enhance one's safety and enjoyment in the backcountry winter environment.

### **Methods of Assessing Student Outcomes**

Student outcomes will be assessed using the following:

1. Class Participation
2. Role playing scenarios
3. Case Studies
4. Skills demonstrations
5. Paired/group activities
6. Peer feedback

### **Required Texts and Materials**

Required Texts:

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- AIARE Student Manual (provided by instructor)
- AIARE field book (provided by instructor)

**Resources:**

Sierra Avalanche Center: <http://www.sierraavalanchecenter.org/>

Avalanche.org: <http://www.avalanche.org/>

AIARE: <http://avtraining.org/>

Weather: <http://www.noaa.gov/>

**Class Requirements**

Due to the experiential nature of this class, students are asked to **experience** all course material including discussions, problem solving, physical activities and the exchange of feedback. Sensitivity and attentiveness toward each group member's experience and the group's progress as a whole will be the responsibility of each group member.

**Grading Policy:**

Participation is everything! This is a pass/ fail course.

**Academic Accommodations:** In accordance with the Americans with Disabilities Act and Section 504 of the Rehabilitation Act of 1973, students with a documented disability are eligible for support services and accommodations. If a student wishes to request an accommodation, please contact the Director of Academic Support Services, Henry Conover, at (775) 831-1314 x7534, [hconover@sierranevada.edu](mailto:hconover@sierranevada.edu) or go to the OASIS offices on the third floor of Prim Library within the first week of the semester.

**Class Schedule**

<i>Class Plan</i>	<i>Assignments</i>
1. Introduction <ol style="list-style-type: none"> <li>About AIARE</li> <li>Course goals and objectives</li> </ol>	<ul style="list-style-type: none"> <li>Pre-Class Quiz</li> </ul>
2. Introduction to decision making <ol style="list-style-type: none"> <li>Case History</li> <li>The anatomy of decision making</li> </ol>	
3. Background information <ol style="list-style-type: none"> <li>Types and characteristics of avalanches</li> <li>Avalanche motion</li> <li>Size classification</li> <li>The mountain snowpack</li> <li>Avalanche terrain</li> </ol>	<ul style="list-style-type: none"> <li>Daily Written Quiz</li> </ul>
4. Observations and information gathering <ol style="list-style-type: none"> <li>Field observation technique</li> <li>Avalanche danger factors</li> <li>Observation checklist</li> <li>Avalanche danger</li> </ol>	<ul style="list-style-type: none"> <li>Danger scale exercise</li> <li>Recognize hazards and create options to avoid them- Field Exercise</li> </ul>
5. The Human Factor	
6. Planning and preparation <ol style="list-style-type: none"> <li>Hazard forecast</li> </ol>	
7. Decision making	
8. Rescue <ol style="list-style-type: none"> <li>Companion rescue</li> <li>Equipment</li> </ol>	<ul style="list-style-type: none"> <li>Create a tour plan</li> </ul>
9. Bonding tests <ol style="list-style-type: none"> <li>Rutschblock</li> <li>Shovel compression test</li> </ol>	<ul style="list-style-type: none"> <li>Successfully execute a rescue scenario</li> </ul>
10. Backcountry skills and field practice	

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***Please note that the schedule of class topics and assignments are subject to change. As outdoor enthusiasts, we are always **POISED FOR CHANGE!*****

### **Equipment List**

#### **1. Personal Equipment**

- a. Clothing for activities and standing in cold/snowy weather (no cotton)
  - i. long underwear
  - ii. insulating layers
  - iii. outer layer (wind/waterproof)
  - iv. warm gloves, mitts, headband, and hat
- b. Goggles and sunglasses
- c. 2 water bottles
- d. Pack (large enough for all equipment on day ski-tours)
- e. Mechanical pencil and spare
- f. Snow saw (optional)

#### **2. Skiing Equipment**

- a. Boots (touring boots recommended)
- b. Skis with touring bindings (or touring adapters) and skins (please adjust bindings to boots and skins to skis before the course). Alpine touring or free-heel gear.
- c. Poles

#### **3. Snowboarding Equipment**

- a. Boots
- b. Collapsible poles
- c. Split Board with touring bindings and skins (please adjust bindings to boots and skins to board before the course) For students arriving at the course with snowboarding equipment, **split boards are recommended, as compared to traveling with snowshoes.**

**OR**

- d. Snowboard with snowshoes (with means of attachment to pack - have a system worked out before you come on the course). Please use blue loctite on all mounting screws.

**Carrying a snowboard and using snowshoes will work, but is not recommended.**

#### **4. Safety Equipment**

- a. Avalanche probe
- b. Collapsible shovel
- c. Avalanche transceiver (457 kHz frequency only. Digital or analogue)
- d. Cell phone
- e. Small personal first aid kit (sunscreen/lip-balm, moleskin, band-aids, medication, etc.)
- f. Ski / snowboard repair kit (screwdriver with appropriate bits, spare screws, spare skin tips, spare pole basket, skin wax, epoxy, etc.)

#### **5. Other/Optional (don't go buy this stuff if you don't already own it)**

- a. Dial stem snow thermometer (graduated in degrees Celsius). Digital thermometers are acceptable but have limitations for snow profile work.
  - b. Grain identification card.
  - c. Magnifier (8x or 10x).
  - d. Folding rule graduated in centimeters, or probe with same. 2+ meter length.
  - e. Compass (Optional, compass with clinometer or bring separate clinometer)
  - f. Altimeter
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- g. GPS
- h. Pocket knife or multi tool.