

# Course Description

## Outdoor Educator Semester

### Features of this Course:

- Backcountry hiking and climbing expeditions, which emphasize teaching and management of backpacking, technical climbing, winter camping and wilderness skills.
- Average pack weight: 65 lbs.
- Minimum Age: 21
- Opportunities for technical peak ascents, rock climbing, backcountry skiing and natural history
- On and off trail hiking
- Trip duration: 94 days
- 12 - 15 students/ 3 or 4 instructors
- Approximately 15 days of classroom time including a Wilderness First Responder (WFR)

### The Expedition

Imagine attending a semester where the end goal is to build your skills, competence, and self-awareness so you can feel confident to work as a professional in the outdoor education field. This Outdoor Educator Semester is designed for those with prior experience in the outdoor education industry—whether through previous employment and/or school/university program—and for those who aspire to enter the outdoor education profession. The three wilderness sections—Winter, Canyon and Climbing—combined with a Level 1 Avalanche certification, a Wilderness First Responder (WFR) certification, Leave No Trace Masters certification and optional Defensive Driving certification will develop your skills, as well as your value to outdoor programs throughout the world. In addition, administrative classes in risk management, managing challenging students, group management, expedition planning, and harassment prevention will be covered.

This semester spent in the outdoors entails camping out, exploring the west, as well as developing technical, management, teaching, leadership and administrative skills. You'll meet people, push yourself and have fun while doing it. The NOLS Outdoor Educator Semester in the Rockies will take you from the high peaks of Wyoming to the red canyons of Utah. You may find yourself jamming your hands and feet into granite cracks, learning how to manage a top-rope climbing site or carving sweet turns down untracked powder. You'll work hard at traveling through knee-deep snow, or keeping yourself and others warm and well fed in a mountain storm. You'll also spend time climbing a challenging crag, identifying plants and wildlife, climbing a peak, sleeping out under the stars, watching the rain from under an overhang and reading by candlelight in a cozy snow shelter. On this semester, you'll develop and refine the teaching and leadership skills needed to prepare you for professional positions.

In the field, you will be responsible for teaching many of the basic and advanced classes. Wilderness living skills, natural history, environmental ethics, expedition behavior, and communication/evaluation skills are all important parts of the curriculum. You'll be challenged to experiment with different teaching styles while polishing your skills, judgment, leadership, and supervisory abilities. Peer and staff feedback of class content, teaching techniques and effectiveness, is an essential part of the learning process. Risk management in wilderness situations is a critical element of outdoor leadership. Your instructors will teach most of the risk management-related classes including river crossings, emergency procedures, and rock and snow climbing. Hazard evaluation, accident prevention, group management, and evacuation procedures are thoroughly discussed and practiced throughout the semester.

### Wilderness First Responder

One of the main components of this semester program is wilderness risk management. As your first section, you will spend ten days in our Wilderness First Responder course (WFR) at the NOLS Three Peaks Ranch. This 80-hour course features first aid training specifically applicable to wilderness situations. The Wilderness Medicine Institute (WMI) of NOLS staff will teach your WFR. This is the standard course required for most outdoor professionals and provides you with the tools to make critical medical and evacuation decisions in remote locations. Your time will be divided between the classroom and completing practical skills, case studies and scenarios designed to challenge your decision-making abilities.

There will also be other time spent in town throughout your semester. You will spend time in town with 3.5 days of classes focusing on risk management, NOLS history, leadership, defensive driving and managing challenging students.



**Winter Section Features:**

- Trip Duration: 15– 21 Days
- Avalanche I Recreational Certification
- 70 lb. Pack And/Or Sled Weight
- Skiing Route: ~ 30 Miles
- Quinzhee Or Igloo Snow Shelter
- Group Size: 12 -15 Students / 3-4 Instructors

Winter in the mountains—cloaked in a blanket of glittering snow, the world is transformed into a quiet, magical place where icicles decorate the trees, animal tracks tell a story and untracked powder snow calls you to ski. Temperatures can plummet to 30° F below zero, and three feet of snow can fall in one storm, but hard work and a positive attitude make winter one of the most rewarding times to travel in the backcountry.

Your winter section begins with six days at the NOLS Three Peaks Ranch in Boulder, Wyoming. These days will consist of two days classroom and field time for the Avalanche 1 curriculum and three days learning and teaching the telemark turn at nearby White Pine Ski area. Evenings will include classes on managing and preventing cold injuries in the field. After six days you'll then head for the mountains. Your winter section will take place in one of these Wyoming mountain ranges: the Snake River, Absaroka, Gros Ventre, Wyoming or Wind River Mountains. While these mountains are very different geologically, they are all known for dependable snow and excellent skiing. Heavily timbered slopes are intermixed with open glades and broad bowls; steep, expert terrain is broken up by gentle beginner and intermediate slopes. These mountains are magical places to explore, and exhilarating areas to learn the intricacies of backcountry skiing and winter travel.

During this section, you'll learn the basics of snow camping, skiing, avalanche training and risk management, snow physics, cold-weather physiology, and winter ecology. You also will learn how to plan a winter expedition as well as teach and safely manage groups in this setting. Your homes will be elaborate snow shelters and flies. Whether you build igloos, quinzhees, or snow caves, you'll find these shelters are remarkably warm and comfortable. Outside the wind can rage, snow can fall, and the temperature can drop. Inside, you'll be reading by candlelight oblivious to the blizzard beyond your snow walls.

Camp chores take up a big portion of your days. Melting snow for water, shoveling, building kitchens and shelters, packing up piles of gear and clothes, and staying warm and dry are time-consuming activities. But once you become efficient, the time you free up can be spent learning about winter ecology, furthering your avalanche assessment skills, teaching classes, or skiing untracked powder. If weather and snow conditions permit, you may have an opportunity for a winter peak ascent.

In these mountains, avalanches are normal, and can bury unwary skiers. Predicting the likelihood of an avalanche occurring has much in common with terrain, weather and snow pack assessment; experience and practice are necessary to refine your judgment. An extensive portion of the curriculum will be spent teaching avalanche assessment and rescue techniques.

**Canyon Section Features:**

- Trip Duration: 23 – 30 Days
- Hiking Route: 70 -120 Miles
- Average Pack Weight: 60 lbs.
- Average Group Size: 12 Students / 3 Instructors

On this section, you'll backpack through the red rock canyons of the Colorado Plateau in southern Utah or northern Arizona. This area is characterized by rugged terrain and delicate beauty, with red sandstone and green junipers adding color to the arid landscape. Relics of the Anasazi culture may still be seen in the form of ruins, petroglyphs and potsherds. At times, you'll travel across mesa tops with spectacular views in all directions, while at others, you'll wind your way through the labyrinthine depths of deeply incised waterways.

Once in the canyons, you'll learn and teach fundamental wilderness travel skills. Map reading and route-finding can be tricky in this convoluted country where your travel days may range from three miles of dense bushwhacking and wading to ten miles of flat mesa walking. The canyon environment is also a great opportunity to learn, refine and teach the skills of GPS use. You'll be challenged by the difficulty of minimizing your impact in an area where the soil is fragile and the water, you took for granted, is hard to find.



In addition to learning to live and travel in the desert environment, you'll also focus on gaining an understanding of the area's natural history and geology. Exposed landforms provide textbook illustrations of the land's geologic past and thickly vegetated riparian zones contrast with stark expanses of rock, sand and blackbush. Prehistoric Indian cultures once thrived here, and you may view the remains they have left tucked away in alcoves. Not only will you learn about the natural history of the area but you will also learn and practice many different teaching techniques and styles.

Leadership is an important component of your canyon section. You'll be given more and more responsibility for the structure of the course as your skills and expertise improve. On many canyon sections, student leadership teams are responsible for planning the day's activities, teaching of classes and with instructor oversight, managing and assessing risk.

### **Independent Student Group Travel**

An emphasis of this course is the development of skills that permit you to be self-sufficient in remote backcountry areas. Our teaching progression for accomplishing this is carefully planned and executed. Initially travel groups, usually of four to six students, will include an instructor who will teach travel skills and leadership. Gradually, as you gain proficiency, the instructor will allow you to take on more responsibility and make more of the decisions. When you have demonstrated the necessary competency to the instructors, you may travel in student-led groups without instructors for a day at a time, as you hike from camp to camp. We call this daily independent student travel, and it is an effective educational tool. It allows you to practice travel skills and leadership, and gives you responsibility for the outcome while still having indirect supervision by instructors and the benefit of the NOLS support systems. The canyon section may culminate in a student expedition. After successful practice with daily independent student travel and if your instructors think your group is ready, the instructors will help you divide into student expedition groups (usually three to six students each). With instructor oversight, each group will then select a leader and carefully plan and execute a multi-day independent student led expedition. This part of the course builds on the skills you've learned and practiced and allows you to travel without instructors for up to three days. Students are aware of where the instructors and the other student groups are planning to travel and camp. NOLS instructors always possess emergency communication capability and may be up to 24 hours away from the students during their independent travel. Our students often say the student expedition was the highlight of their course.

Fasting is an optional part of the curriculum for the student expedition (or optional solo if applicable) on this course. If the instructors think fasting is appropriate for the conditions and student abilities the students may chose to fast during the student expedition (or optional solo). Rations will be carried to allow students to eat in the event of an emergency.

### **Climbing Section Features:**

- Trip Duration: 20 – 26 Days
- 3 – 4 Instructors

The climbing section is a stationary camp. The curriculum includes the NOLS rock climbing teaching progression, some rock rescue techniques and top rope site management. You'll also be able to develop your climbing skills on top ropes and multi-pitch climbs. Between the canyon and climbing sections, you may return to town for a very brief period to reorganize gear and rations and most likely take showers.

For you to learn and teach many different climbing techniques our climbing camps will take place in 1-3 different areas. Depending on weather, your climbing camps will be held on granite slabs of the House Range in Utah; at Split Rock, Wyoming; Lankin Dome, Wyoming; Sinks Canyon, Wyoming; Unaweep Canyon, CO; Devils Tower, Wyoming; or in the Needles/Mt. Rushmore area of South Dakota. All of these areas offer excellent rock quality and climbs that will challenge beginners and experts alike.

Climbing camps are base camps. You'll set up your tents, establish a kitchen and stay in one place for the duration of the section. You may be camped in established campgrounds, or in more pristine areas. Regardless, you should expect to encounter people on this section and you may end up driving to and from the crags each day.

Instruction will progress from the basics of movement on rock, knots, rope handling and belaying, to protection placement, anchors, rappelling and rope system management. Plan to spend a lot of time climbing. More advanced topics, such as fixed rope ascension, direct aid and self-rescue will be addressed.



Climbing may be done as part of a large group when top-roping or in a small group of three to four for multi-pitch routes. You will be able to progress at your own speed. Instructors emphasize a safe, positive attitude toward climbing and the development of your own natural abilities. For these reasons, they are selected for their teaching ability, as well as for their technical expertise.

Of all the activities you will experience, climbing is the most weather dependent. We attempt to schedule courses so that climbing sections will have good weather, but due to many variables beyond our control (permits, areas, and not the least, weather itself), we cannot guarantee this. You should come prepared to spend a lot of time on the rock, but realize this does not always happen. We will do everything possible to make your time productive, but only large measures of self-motivation can help overcome the "bad weather blues."

After completing a careful progression of instruction and climbing, students are expected to set up and supervise top rope and rappel sites in front country climbing areas. Emphasis is also placed on developing lead climbing skills (as appropriate/commensurate to individual student climbing skills and abilities), setting up climbing sites and focusing on management/risk management concerns when climbing with students.

### **Student Classes**

Students are expected to teach on this course. Topics will likely be decided before leaving town. Instructors will advise you on content and the NOLS Staff Library will be available for a short time at the start of your course. Most evenings, you will have additional time to prepare classes during your WFR course. Doing so will help your classes be clear, concise, and relevant, as well as effective and fun. NOLS is known for creative and effective use of impromptu teaching aids whether they be anatomical diagrams on bodies, or "blackboards" on insolite pads or sandbars.

Critiques of classes can help everyone learn about education when done positively and constructively. After some warm-up "mini-classes," feedback may become more formal and possibly begin with a self-critique.

On any NOLS course, the classes support the activities, but the activities are the heart of the course. Instructors constantly adjust plans with changing conditions, especially as "teachable moments" arise. This makes the scheduling of your classes tentative. It also means that NOLS instructors routinely plan for many different alternatives, only using the most fitting ones. It is possible that one or two prepared classes will not even be presented. We also hope that you will point out teachable moments as you experience them. Guided discovery is what experiential education is all about. Helping you to develop your skills to both model and guide others in this discovery is the foundation of this NOLS outdoor educator semester.

You'll be living with two or three other students in a cook group during the course. Usually the composition of the cook group changes each ration period, so you get to know and work closely with all members of your semester. These small groups help disperse our impact on the land, and enable you to master the art of backcountry cooking and living. You'll get lots of coaching from your instructors while you learn new skills. Before you know it, you'll be savoring homemade pizza or cinnamon rolls—gourmet delicacies that you made from scratch on a single-burner stove.

Group dynamics and leadership are an integral part of our curriculum. You'll learn how to live and work closely with your course mates while you travel through the mountains. Bringing a tolerance for adversity and uncertainty, respect for other members, and a willingness to work hard will be critical to success. As your group gains leadership skills and experience working together, you can expect your instructors to give you more responsibility for leading yourself and your peers.

You'll come back to town as you switch sections to organize and take care of gear, get oriented to new sections, receive mail, and possibly squeeze showers and laundry in! Not all courses return to town; some are "on the road" for two or three sections and have their transition days in places like Moab, Utah or Driggs, Idaho. Due to long travel distances, all courses spend several days in a school bus on the road. The final day of the semester is spent in town deissuing equipment and finishing evaluations. That evening, there will be an end-of-course banquet.

### **Student Independence**

On all NOLS courses, students will be independent (that is, unaccompanied by instructors) at various times; this will include time in and around camp, such as while cooking or performing camp chores. Instructors may allow students to travel away from camp. Away from the field, students often have independent, unsupervised time, usually in town, before and after their course starts or between sections of semesters. Students are expected to maintain the same level of expedition behavior and



adherence to NOLS drug/alcohol/tobacco policy while transitioning between sections, either on the road or while staying at the Noble Hotel, Three Peaks Ranch, or the Vernal River Base.

### **College Credit**

You may earn up to 19 credit hours through the University of Utah for successfully completing the Outdoor Educator Semester. Please see the college credit paperwork enclosed in your enrollment packet. Although there will be many "classes" during the semester, credit is granted for the experiential nature of the learning, not for formalized class work.

Regardless of whether or not you register for credit, you should expect ongoing verbal coaching and feedback throughout the semester, with written performance summaries at the end of each section.

### **Weather and Other Challenges**

Spring weather in the inter-mountain west is capricious. On any given day, temperatures may range from below freezing to sweltering. During the course of your semester, you'll feel the seasons change from the cold days of winter to the verdant days of spring. You'll learn to live comfortably outside in blizzards, rainstorms, wind and sunshine. Given the altitude and latitude of the areas you will be in, cold and snowy conditions can occur any month of the year. There are times when you will be cold, wet or tired, but you will learn to manage these situations and maybe even smile while you do.

Life in the wilderness can be tough. You may be off-trail bushwhacking through thick vegetation or battling wind gusts that threaten to "turtle" you. You'll traverse steep slopes of loose rock, snow or grass and grunt up steep passes. There will be times when you'll wish you were somewhere else, but the hard work is worth it. There's nothing quite like taking your pack off at the top of a pass, feeling the wind dry the sweat off your back, and looking down at miles of new country opening up before you. It's exhilarating!

While bear encounters are unlikely in the spring, bear avoidance techniques will be integrated into mountain hiking and river sections as needed. Precautions against bear encounters will decrease the opportunities for solitude and privacy on this course. You will protect food from bears for mountain hiking sections. Other bear avoidance tactics include meticulously maintaining cleanliness at the cooking sites and making loud calls to warn bears of your presence.

Climbing occurs on exposed cliffs where loose rock and unexpected falls are potential dangers. Winter hazards include avalanches, cold temperatures, and demanding travel on skis. These hazards and challenges are not meant to intimidate you, but they are the reality of living and traveling in the wilderness. Identifying and managing hazards—which could be falling rock, stormy weather, animals, moving water or steep terrain—will be a constant theme in our instruction. Throughout your course, you'll be miles from the amenities of civilization. Telephones, ambulances and hospitals may be several days away. Managing risks and assuming responsibility for yourself and your colleagues will help make your expedition in these wild places healthy and fun.

### **Personal Electronics**

A key element to a NOLS education is time spent in wilderness. The benefits of this include being closer to nature, time away from society and civilization, and being in an environment where natural forces predominate and students have the opportunity to develop good judgment and practice self-reliance. For this reason, students are not permitted to take personal music players (iPods, MP3 players, CD players, etc.), cell phones, or satellite phones on NOLS courses. Instructors will be carrying sufficient communication equipment (usually a satellite phone and a ground-to-air or marine band radio) to handle any emergencies that may arise.

### **General Course Objectives**

As an overall course objective, we expect Outdoor Educator Semester graduates to be capable of responsibly leading groups of novices through educational experiences in the wilderness. Each course will be unique due to variables such as route, group dynamics, fitness levels, and environmental conditions. Working with these variables, it is our intent to accomplish the following outcomes.

### **Risk Assessment and Judgment**

NOLS' goal is to prepare students to teach and practice responsible habits that promote the health and well being of self and others. We expect each student to accomplish the following:

- Demonstrate knowledge of the hazards in mountain environments and of your limitations



- Describe and consistently perform specific techniques to reduce or avoid hazards
- Describe emergency plans for groups in the outdoors in a variety of settings and circumstances
- Show the ability to provide emergency and extended medical care for a remote wilderness setting using the available resources
- Use experience and judgment to implement sound decisions and follow them through to completion
- Understand and work within NOLS safety policies and procedures

### **Leadership and Expedition Behavior**

Students are exposed to the theory and practice of outdoor leadership, teamwork, and expedition behavior. At NOLS, expedition behavior involves commitment to the group, a positive attitude and cooperation to achieve goals.

We expect each student to accomplish the following:

- Work effectively as members of a team
- Appropriately communicate ideas and concerns on individual and group levels
- Accurately identify strengths, skills and areas for growth in developing outdoor leadership styles in self and others
- Display an appropriate initiative in a teaching/leadership role with peers
- Demonstrate effective problem-solving and planning skills
- Provide effective oral and written feedback
- Display an awareness of group strengths and limitations

### **Outdoor Skills**

Students are expected to live, travel and guide others in the outdoors within a framework of competence and care of the environment. We expect each student to accomplish the following:

- Live comfortably in a mountain environment: camping, cooking, and dressing for varied conditions
- Travel competently in mountain terrain using appropriate off-trail navigation, hazard evaluation, and river-crossing techniques
- Demonstrate a thorough understanding of elementary climbing systems including knots, belaying, and anchors
- Set up and supervise top-rope and rappel sites in front country settings
- Experience multi-pitch climbing and non-technical peak ascents
- Possess skills and knowledge of snow travel techniques
- Accurately assess skills, strengths and endurance in self and others and conservatively apply those limits to given situations

### **Environmental Studies**

Students develop an awareness of how to apply minimum impact ideas to their lives beyond the course.

We expect each student to accomplish the following:

- Consistently practice and teach sound minimum impact living and travel skills
- Use basic observation, interpretive and teaching skills to convey an understanding, appreciation and respect for the natural world
- Facilitate the transference of wilderness ethics and practices to daily life

### **Wilderness Education Skills**

The Outdoor Educator semester prepares students to be wilderness educators as well as wilderness leaders. We expect each student to accomplish the following:

- Demonstrate the ability to effectively teach basic outdoor living skills
- Demonstrate knowledge of environmental and risk management concerns and their influence on learning in the wilderness
- Be an exemplary model of a competent and effective wilderness educator
- Demonstrate motivation and enthusiasm in the pursuit of learning
- Be effective in the presentation and utilization of learning opportunities, adapting to the variables of the course



## **Reading List**

NOLS outdoor educator semesters are stepping-stones for outdoor professionals who already have experience in the terrain and skills of their course. Staying well read is a given part of continuing education for any professional.

You may already be familiar with many of the titles on this list. We encourage you to have a working knowledge of one or two books on this list before beginning your course. Asterisked selections (\*) are books we routinely use as references.

Your familiarity with these books can only enhance your experience on your NOLS Outdoor Educator Semester. Your preparation before the course often determines whether you are learning basic material on your course, or better yet, learning how to teach it. And most of all, we hope you enjoy these books.

\* books we routinely use as references in the field

### **Wilderness Education**

Drury, Jack, et al (2005). *The Backcountry Classroom* (2<sup>nd</sup> ed.).

\*\*Gookin, John (2006). *The NOLS Wilderness Educator Notebook*, (10<sup>th</sup> ed.).

Priest, Simon (2005). *Effective Leadership In Adventure Programming* (2<sup>nd</sup> ed.).

### **Risk Management**

Ajango, Deb (2005). *Lessons Learned II*.

*American Caving Accidents* (annual). National Speleological Society.

Broze, Matt, and George Gronseth (1997). *Sea Kayaker's Deep Trouble*.

Gonzales, Laurence (2004). *Deep Survival: Who Lives, Who Dies, And Why*.

\*\*Leemon, Drew & Tod Schimelpfenig (2005). *Risk Management For Outdoor Leaders*.

Leemon, Drew et al (2002). *Adventure Program Risk Management Report, V3, 1998-2000*. AEE.

Raffan, James (2002). *Deep Waters: Is The Adventure Worth The Risk?*

Ross, John (1999). *The Polar Bear Strategy: Reflections On Risk In Modern Life*.

Walbridge, Charlie (1996). *The ACA's River Safety Anthology*.

Wilde, Gerald (2001). *Target Risk 2: A New Psychology Of Risk And Health*.

*Wilderness Risk Management Conference Proceedings* (annual).

Williamson, Jed (annual). *Accidents In North American Mountaineering*.

### **Living in the Wilderness**

\*Harvey, Mark (1999) *The NOLS Wilderness Guide*.

Howley Ryan, Mary (2008) *NOLS Backcountry Nutrition*.

\*Pearson, Claudia (2004). *The NOLS Cookery*.

### **Minimum Impact Camping**

\*Hampton, Bruce, and David Cole (2003). *Soft Paths* (3<sup>rd</sup> ed.).

Harmon, Will (1994). *Wild Country Companion*.

Hart, John (1998). *Walking Softly in the Wilderness*.

\*Regional Leave No Trace "skills & ethics" booklets [www.lnt.org](http://www.lnt.org)

### **Climbing & Mountaineering**

DaSilva, Rachel (1998). *Leading Out: Mountaineering stories of adventurous women*.

Chouinard, Yvon (1978). *Climbing Ice*.

Cox, Steven (2003). *Mountaineering: The Freedom of the Hills* (7<sup>th</sup> ed.).

Long, John (2006). *Climbing Anchors*, (2<sup>nd</sup> ed.).

Long, John (2003). *How To Rock Climb* (4<sup>th</sup> ed.).

\*\*Anderson, Dave (2008). *NOLS Climbing Instructor Notebook* (4<sup>th</sup> ed.).

\*Powers, Phil (2008). *NOLS Wilderness Mountaineering* (3<sup>rd</sup> ed.).

\*Tyson, Andy (2005). *Glacier Mountaineering*.

Vause, Mikel (2002). *Rock and Roses* (2<sup>nd</sup> ed.).

## **Wilderness Medicine**

- Auerbach, Paul (2007). *Wilderness Medicine: Mgmt of Wilderness and Env. Medicine (5th ed.)*. (reference book)
- Forgey, W (1999). *Wilderness Medicine (5th ed.)*
- Giesbrecht, Gordon & James Wilkerson (2006). *Hypothermia, Frostbite and Other Cold Injuries. (2nd ed.)*
- \*Houston, Charles (2005). *Going Higher: Oxygen, man and mountains (5th ed.)*
- Johe, David & Warren Bowman (2002). *Outdoor Emergency Care (4th ed.)*
- \*Schimelpfenig, Tod (2006). *NOLS Wilderness Medicine*.
- Setnicka, Tim (1981). *Wilderness Search and Rescue*.
- Tilton, Buck (2004). *Wilderness First Responder (2nd ed.)*.
- Wilkerson, James A. (2001). *Medicine for Mountaineering (5th ed.)*.

## **Wildland Ethics**

- Brower, David (1995). *Let The Mountains Talk, Let The Rivers Run*.
- Callicott, J. Baird, and Michael P. Nelson, eds. (1998). *The Great New Wilderness Debate*.
- Cordell, HK, et al (2005). *The Multiple Values Of Wilderness*.
- \*\*Gookin, John & Darran Wells (2002). *NOLS Environmental Education Notebook*.
- \*Goodrich, Glenn (2006). *NOLS Wilderness Ethics: Valuing and Managing Wild Places*.
- Hendee, John, et al. (1990). *Wilderness Management (2nd ed.)*.
- Nash, Roderick (2001). *Wilderness and The American Mind (4th ed.)*.
- Oelschlaeger, Max (1993). *The Idea of Wilderness*.
- Waterman, Laura & Guy (1993). *Wilderness Ethics: Preserving the Spirit of Wilderness*.
- The Wilderness Act of 1964 [www.wilderness.net/index.cfm?fuse=nlwps&sec=legisact](http://www.wilderness.net/index.cfm?fuse=nlwps&sec=legisact) also in Goodrich (2006).
- Zaslowky, Dyan (1994). *These American Lands*.

## **Environmental Studies & Sustainability**

- Brower, Michael (1998). *The Consumer's Guide To Effective Environmental Choices*.
- Edwards, Andres (2005). *The Sustainability Revolution*.
- \*\*Gookin, John & Darran Wells (2002). *NOLS Environmental Education Notebook*.
- Leopold, Aldo (1966). *Sand County Almanac*.
- Light, Andrew & Holmes Ralston, III (2003). *Environmental Ethics*.
- Lorbiecki, Marybeth (1996). *Aldo Leopold: A Fierce Green Fire*.
- McKenzie-Mohr, Doug (1999). *Fostering sustainable behavior: an introduction to community-based social marketing*.
- Miller, Char (2001). *Gifford Pinchot and the Making of Modern Environmentalism*.
- Orr, David (2004). *Earth In Mind: On education, environment and the human prospect*.
- Reisner, Marc (1993). *Cadillac Desert: The American West and Its Disappearing Water (2nd ed.)*.

## **Leadership**

- Bennis, Warren (1985). *Leaders*.
- \*\*Gookin, John & Shari Leach (2008). *NOLS Leadership Educator Notebook*.
- Graham, John (1997). *Outdoor Leadership: Techniques, Common Sense And Self Confidence*.
- Heifetz, Ronald (2002). *Leadership On The Line: Staying Alive Through The Dangers Of Leading*. Harvard Business School.
- Huntford, Roland (1986). *The Last Place on Earth*.
- Heider, John (1986). *The Tao of Leadership*.
- Roberts, Wess and Bill Ross (1995). *Make it So: leadership lessons from Star Trek*.
- Roberts, Wess (1990). *Leadership Secrets Of Attila The Hun*.
- Siebert, Al (1996). *The Survivor Personality*.
- Siebert, Al (2005). *The Resiliency Advantage.: Master change, thrive under pressure, and bounce back from setbacks*.
- Snyder, Howard (1973). *Hall of the Mountain King*. Out of Print. (see Chessler Books or Abebooks).
- Taylor, Rob (1981). *The Breach*.

## **Rocky Mountain History**

- Blevins, Winfred (1973). *Give Your Heart to the Hawks*.
- DeVoto, Bernard (1947). *Across the Wide Missouri*.
- Guthrie, A.B. (1947). *The Big Sky*.



## **Earth Sciences**

- Day, John (1998). *A Field Guide To The Atmosphere*.  
\*Link, Paul (1977). *Geology of the Wind River Range*. NOLS.  
McPhee, John (1981). *Basin and Range*.  
McPhee, John (1983). *In Suspect Terrain*.  
\*McPhee, John (1986). *Rising from the Plains*.  
Renner, Jeff (2005). *Mountain Weather*.  
\*Rey, H.A. (1975). *The Stars*.  
Woodmency, Jim (1998). *Reading Weather: where will you be when the storm hits?*

## **Fly Fishing**

- \*Anderson, Sheridan (1978). *Curtis Creek Manifesto*.  
Bergman, Ray (1983). *Trout*.  
Brooks, Joe (1972). *Trout Fishing*.  
Gierach, John (1984). *Fly Fishing the High Country*.

## **Mountain Expeditions**

- Allison, Stacy (1999). *Beyond the limits*.  
Blum, Arlene (1998). *Annapurna: A Woman's Place*.  
Craig, Robert (1980). *Storm and Sorrow in the High Pamirs*. (Out of print: see Chessler Books or Abebooks).  
Davidson, Art (1999). *Minus 148 Degrees*.  
Herzog, Maurice (1952). *Annapurna*. (various printings)  
Hornbein, Tom (1998). *Everest: The West Ridge*.  
Jones, Chris (1997). *Climbing in North America*.  
Roberts, David (1986). *Moments of Doubt*.  
Roper, Steve (1979). *Fifty Classic Climbs of North America*.  
Waterman, Jon (1991). *Surviving Denali (2<sup>nd</sup> ed.)*.  
Wilson, Ken (1981). *The Games Climbers Play*.

## **Flora and Fauna**

- Colinvaux, Paul (1978). *Why Big Fierce Animals are Rare*. (out of print: see Abebooks)  
Ehrlich, Paul (1988). *The Birders Handbook*.  
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