

# Course Description

## Rocky Mountain Instructor Course

### Features Of This Course:

- Backcountry hiking and climbing expedition (front-country climbing for May courses) that emphasizes teaching the NOLS curriculum: mountain backpacking, technical climbing, and wilderness living and travel skills
- Hiking route: 50~100 miles
- Grizzly bear habitat
- Average pack weight: 60 pounds
- Minimum age: 21
- Average age: 27
- Opportunities for technical peak ascents, rock climbing, teaching, leading, fishing, and natural history
- On and off-trail hiking
- Group size: 12 students & 3 instructors

### The Expedition

The Rocky Mountain Instructor course is conducted in the Wind River Range of Wyoming, a rugged, glacier-carved range renowned for its sheer granite walls and famous for its fishing and climbing. Its towering peaks, glistening alpine lakes, and perennial snow make a perfect classroom for learning wilderness travel techniques, outdoor living skills, and mountaineering. On this course, you'll develop and refine the teaching and leadership skills necessary to prepare you for professional positions at NOLS and other wilderness programs.

The Mountain Instructor course is conducted three times each summer in Wyoming. The basic curriculum, expectations, and outcomes for the Instructor Course are similar regardless of start date.

The early May course is divided into two sections—a three-week backpacking expedition in the Wind River Mountains followed by a climbing base camp at either Split Rock or Lankin Dome, both on the high plains of central Wyoming. Due to unpredictable mountain weather and lingering winter snowpack in the spring, the hiking portion of this course often entails camping and traveling on snow for most, if not all, of its duration. The climbing section is a stationary camp that will cover the NOLS rock climbing teaching progression, some rock rescue techniques, and top rope site management. You will also be able to develop further climbing skills related to leading and multi-pitch climbs. This course is designed to prepare participants for working wilderness hiking courses for NOLS and, for qualified participants, will also include the opportunity to be assessed to work climbing courses. (It should be noted that being a rock climber is not necessary for having a successful NOLS career.)

The late May course will take place entirely in the backcountry of the Wind River Mountains. This course will cover the full curriculum needed to work wilderness hiking courses for NOLS, including leadership progression, navigation, off-trail travel, river crossings, travel on steep snow, and fly fishing. Exposure to the climbing curriculum will be more limited on this course, but will include all skills necessary to be an effective wilderness instructor, such as 3<sup>rd</sup> and 4<sup>th</sup> class terrain and top rope site management. This course will likely begin with the majority of camping and traveling taking place on snow. As early season, spring conditions give way to summer, you may find yourself seeing the earliest wild flowers of the season as the mountains begin to dry out. The dynamic conditions at time in the mountains will present the opportunity to learn a great deal about the various conditions encountered on a typical, early season NOLS hiking course.

The course beginning in July will also take place entirely in the Wind River Mountains. This course will be a self-contained backpacking expedition of more than 30 days, with two re-rations by horse packers. This IC is designed to prepare participants for working wilderness hiking courses for NOLS and, for qualified participants, may also include the opportunity to be assessed to work climbing courses. Depending on weather, participants on this course may have the ability to learn top rope site management skills, multi-pitching techniques, and mountaineering and glacial travel skills. This course presents excellent opportunities to travel extensively through the mountains, concentrating on navigation, river crossings, peak ascents, and local flora, fauna, and ecology.



The instructor course will start in Lander with two days of in-town classes and activities focusing on issuing gear and rations, taking a WFR level first aid test, and discussing NOLS history, leadership theory, and group management and supervision techniques. During the two days in town, you'll also have time to research and prepare classes. Then you'll head off to the mountains to begin your expedition. For participants on the early May IC, between the backpacking and climbing sections, you will return to Lander for a very brief period to reorganize gear and rations.

As noted above, you will be responsible for teaching basic and advanced classes in the field. Wilderness living skills, natural history, environmental ethics, expedition behavior, and communication 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 as an educator are all essential parts of the learning process.

Risk assessment 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 on the course. Students will be evaluated on their first aid skills and knowledge. Practical scenarios will be used during the course.

Climbing is an important component of the NOLS curriculum and is taught and evaluated on the Mountain Instructor Course. After completing a careful progression of instruction and climbing, students are expected to set up and supervise top rope and rappel sites in diverse mountain settings. Emphasis is also placed on developing lead climbing skills (as appropriate with student ability) and managing students in a climbing setting. However, climbing activities will only make up a relatively small percentage of the course time. In fact, mountain weather may prevent climbing activities from taking place at all.

During the Instructor Course you will live in small groups of three or four to minimize your impact on the land and to hone your camping skills. You will also travel in small groups from camp to camp in order to enhance learning and the wilderness experience.

### **Student Independence**

On all NOLS courses students will be independent (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. Students often have independent unsupervised time, usually in town, before and after their course starts or between sections. Students are expected to maintain the same level of expedition behavior and adherence to NOLS' drug/alcohol/tobacco policy while transitioning between sections and while staying at the Noble Hotel, Three Peaks Ranch, or the Vernal River Base.

### **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.

This course may culminate in a Student Expedition. If deemed appropriate by your instructors, the Student Expedition will come after successful practice with daily independent student travel and after covering an array of curriculum including navigation, risk management, first aid, and Emergency Procedures. If your instructors think your group is ready, they will help you divide into student expedition groups (usually four to seven 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. Students are aware of where the instructors and the other student groups are planning to travel and camp. Each Student Expedition group will carry an emergency communication device that will allow students to initiate an emergency response in the event of a serious emergency. In most cases students will have a personal locator beacon, but in some situations they will have a satellite phone, cell phone, radio or



possibly another type of device. The instructors with a satellite phone, or additional communication capability, may be up to 24 hours away from the students. 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 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.

### **Evaluations and Future Employment**

Instructors evaluate students in the following areas: Risk management and judgment, teaching, communication, expedition behavior, leadership, conservation practices, climbing, and outdoor skills. At the conclusion of the course, each student receives a written evaluation documenting his or her abilities. Those who complete the course and do well are eligible to work a land-based course as an instructor at NOLS. Currently, about 80 percent of those passing eventually work for NOLS, but job opportunities cannot be guaranteed. Those who wish to be available for fieldwork during the same summer as their Instructor Course are advised to apply for an early date.

We look for initiative, creativity, and potential for growth as a wilderness educator. We operate on the premise that there is always more to learn and areas in which to grow no matter what the skill level, knowledge, or experience. The Instructor course is a demanding learning experience, and there is little free time. Those who do well on a NOLS Instructor Course bring a positive attitude toward learning and growing, a respect and support for others, and a care and enjoyment of the natural environment.

### **Weather and Other Challenges**

Mountain weather is capricious. On any given day, temperatures may range from below freezing to sweltering. Afternoon thunderstorms are common and can be quite violent. Courses may experience snow and rain, or long stretches of sun and blue skies.

Travel in the mountains can be tough. Camping may involve dealing with swarms of mosquitoes and hanging your food or using portable electric fences to keep it away from bears or other animals. You'll be miles from the amenities of civilization. Telephones, ambulances, and hospitals may be several days away.

Often, you'll be off-trail bushwhacking through thick forests or scrambling around refrigerator-sized boulders. Early season courses may spend most of their time camping and traveling on snow. The depth of the late spring/ early summer snow pack will affect how much mileage can be covered. Rivers are icy from snowmelt and can be difficult or impossible to cross. You will traverse steep slopes of snow, loose rock, or grass, and grunt up high-mountain passes. 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!

Bear avoidance techniques while camping and traveling will be integrated into this course. Precautions against bear encounters may decrease the opportunities for solitude and privacy on this course. To minimize risk, group size in bear country is generally four persons and you will always camp and travel in a group. This is a challenging aspect of living in grizzly bear habitat. Other bear avoidance tactics include meticulously maintaining cleanliness at the cooking sites, making loud calls to warn bears of your presence when moving through areas where visibility is poor, and hiking with bear spray.

Identifying and managing mountain hazards — falling rock, weather, animals, moving water, and steep terrain will be a constant theme in our instruction. Managing risks and assuming responsibility for yourself and your colleagues will help make your expedition in these wild mountains 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. NOLS does not permit students to use personal cell or satellite phones or other communication devices including personal tracking devices (e.g. SPOT), while in the field. Additionally, students are not permitted to take personal music players (iPods, MP3 players, CD players, etc). Instructors will be carrying sufficient communication equipment (usually a satellite phone) to handle any emergencies that may arise.



## **Mountain Instructor Course Objectives**

As an overall course objective, we expect Instructor Course 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 Management, Judgment and Decision Making**

NOLS prepares instructors 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 risk management 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 risk management 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 diverse mountain settings
- Experience multi-pitch climbing and non-technical peak ascents (as conditions/experience/abilities allow)
- Possess rudimentary skills and knowledge of snow travel techniques
- Understand and execute techniques for hiking and camping in bear habitat
- Accurately assess skills, strengths and endurance in self and others and conservatively apply those limits to given situations
- Display the skills necessary to teach spin and fly fishing techniques to novices

### **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 Instructor course 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 responsible 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

## Student Classes

Students are expected to teach on the Instructor course. Topics will be determined before leaving town. Try to select subjects you are already familiar with. Instructors will advise you on content, and the NOLS staff library will be available before and for a short time at the start of your course. You should try to prepare as thoroughly as possible before leaving town. 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 are anatomical diagrams on bodies, or "blackboards" on insolate 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 the NOLS instructor course.

Please be prepared to teach any of these basic topics on short notice:

• Keeping Warm and Dry	• Basic Cooking
• Stove Use and Care	• <i>Leave No Trace</i> Techniques
• Pack Packing and Carrying	• Fire Building
• First Day Hiking Tips	• Basic Map Reading
• Campsite Selection	• Time Control Planning (Hiking Itineraries)
• Tent and Fly Pitching	• Sanitation and Hygiene
• Foot Care and Blister Treatment	• Food Identification

Expect to teach at least one of these more advanced classes. You can prepare them at the start of your course. It will also help throughout your NOLS experience if you arrive with a basic understanding of each of these topics as they relate to wilderness education:

• Expedition Planning	• Astronomy/Constellations
• Advanced Cooking and Baking	• Ecological Concepts/Topics
• Fly and Spin Fishing	• Flower Keys and Taxonomy
• Compass Use	• Gender-Specific Medical Concerns
• Advanced Map Reading	• Fauna/Animal Signs/Tracks
• Wilderness Ethics and Land Use	• Weather/Lightning
• Expedition Behavior	• Glaciology
• Field Expedient Splints	• Tectonics/Rocks & Minerals
• Field Expedient Litters	• Ornithology
• Environmental Injuries : Heat, Cold	• Leadership & Group Dynamics Topics
• Extended Patient Care	• Rocky Mountain History
• High Altitude Physiology	• Stove Repair
• Athletic Injuries	• Climbing Topics (Rock & Snow)
• Nutrition	• River Crossings

Expect to also teach a Mini-Class on a local animal and a local plant (1-5 Minutes).

## NOLS Instructor Course (IC) Reading List

NOLS instructor courses are stepping-stones for outdoor professionals who already have extensive experience in the terrain and skills of their course. We expect each participant to have a broad experience base and be in shape physically and mentally. Staying well read is a given part of continuing education for any professional. You should already be familiar with many of the titles on this list. We expect you to have a working knowledge of at least one book from each relevant category before beginning your course. Your familiarity with these books can only enhance your experience on your NOLS Instructor Course. 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.

**Got suggestions?** Just email recommended titles to [curriculum@nols.edu](mailto:curriculum@nols.edu)

### Key

\* Books we routinely use as references in the field

\*\* NOLS instructor notebooks will be supplied to IC students on specific IC course types.

**BSIC**= Baja Sailing Instructor Course

**KIC**= Sea Kayak Instructor Course

**RIC-U/Y** = River Instructor Course: raft/kayak/canoe in **Utah** or canoeing in the **Yukon**

**SIC** = Summer Instructor Course: the original "IC" has been run in Wyoming's mountains since 1971.

Some of these have a separate climbing camp: some are 35-day expeditions.

**ICS** = Southwest Instructor Course: a mountain instructor course run in Arizona

**AKIC**= Alaska Instructor Course: a mountain instructor course with glacier travel but no rock camp

**PNIC**= Pacific Northwest Instructor Course: a mountain instructor course with glacier travel but no rock camp

### Wilderness Education (all ICs)

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 (all ICs) Recommended focus list:

\*\*Gookin, John (2006). *The NOLS Wilderness Educator Notebook*, (10<sup>th</sup> ed.). chapter 11

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

Priest, Simon (2005). *Effective Leadership In Adventure Programming* (2<sup>nd</sup> ed.). chapter 7

These publications document common accidents and supplement the above comprehensive titles.

*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*.

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

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

### Living in the Wilderness (all ICs)

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

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

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

### Minimum Impact Camping (all ICs)

\*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 (SIC, ICS, AKIC)**

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

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

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

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

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

Long, John (2003). *How To Rock Climb (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.)*.

### **Whitewater Paddling (RIC)**

American Canoe Association (2005). *ACA Instructor's Manual*.

\*Gullion, Laurie (1987). *Canoeing & Kayaking- Instruction Manual*. American Canoe Association.

Jackson, Eric (1999). *Whitewater paddling strokes and concepts*. Stackpole.

Mason, Bill (1999). *The path of the paddle*. Firefly Books.

Ostis, Nate (2010). *NOLS River Rescue*. PA: Stackpole.

\*\*Ostis, Nate (2006). *NOLS River Educator Notebook*.

ACA books: we generally use the ACA curriculum for whitewater instruction (with their blessings).

### **River Rescue (RIC)**

Ostis, Nate (2010) *NOLS River Rescue Booklet* (in press)

\*Ray, Slim & Les Bechdel (1997). *River Rescue (3<sup>rd</sup> ed.)*.

Walbridge, Charlie (1995). *Whitewater Rescue Manual*.

### **Sea Kayaking (KIC)**

Burch, David (2005). *Fundamentals of Kayak Navigation (4<sup>th</sup> ed.)*.

\*Dowd, John (2004). *Sea Kayaking- A Manual For Long Distance Touring (5<sup>th</sup> ed.)*.

\*Hutchinson, Derek (2004). *The Complete Book Of Sea Kayaking (5<sup>th</sup> ed.)*.

Ince, John, and Hedi Kottner (1992). *Sea Kayaking Canada's West Coast*.

Schumann, Roger & Jan Shriner (2001). *Sea Kayak Rescue*.

Seidman, David (2000). *The Essential Sea Kayaker (2<sup>nd</sup> ed.)*.

\*\*Smithhammer, Bruce (2005). *The NOLS Sea Kayak Instructor Notebook (2<sup>nd</sup> ed.)*.

Washburne, Randall (1998). *The Coastal Kayaker's Manual (3<sup>rd</sup> ed.)*.

### **Sailing (BSIC)**

\*\*NOLS Sailing Instructor Notebook

Fries, Derrick (1997). *Start Sailing Right*. US Sailing Assn.

Rousmaniere, John (1999). *The Annapolis Book of Seamanship (3<sup>rd</sup> ed.)*.

Seidman, David (1995). *The Complete Sailor: learning the art of sailing*.

### **Oceanography & Marine Biology (KIC & BSIC)**

Carson, Rachel (1998). *The Edge Of The Sea*.

\*Fox, William (1992). *At The Sea's Edge: Coastal Oceanography for the Amateur Naturalist*.

Greenlaw, Linda (1999). *The Hungry Ocean*.

Pojar, Jim, and Andy MacKinnon (1994). *Plants of Coastal British Columbia*.

Steinbeck, John (2001). *The Log from the Sea of Cortez*.

### **Bluewater Expeditions (KIC & BSIC)**

Brower, Kenneth (1983). *The Starship and the Canoe*.

Callahan, Steve (2002). *Adrift*.



Fredston, Jill (2001). *Rowing To Latitude*.  
Junger, Sebastian (1997). *The Perfect Storm*.  
Lansing, Alfred (1999). *Endurance: Shackleton's Incredible Voyage (2<sup>nd</sup> ed.)*.

### **Wilderness Medicine (All ICs)**

Auerbach, Paul (2007). *Wilderness Medicine: Mgmt of Wilderness and Env. Medicine (5<sup>th</sup> ed.)*. (reference book)  
Forgey, W (1999). *Wilderness Medicine (5<sup>th</sup> ed.)*  
Giesbrecht, Gordon & James Wilkerson (2006). *Hypothermia, Frostbite and Other Cold Injuries. (2<sup>nd</sup> ed.)*.  
\*Houston, Charles (2005). *Going Higber: Oxygen, man and mountains (5<sup>th</sup> ed.)*  
Johe, David & Warren Bowman (2002). *Outdoor Emergency Care (4<sup>th</sup> ed.)*.  
\*Schimelpfenig, Tod (2006). *NOLS Wilderness Medicine*.  
\*Schimelpfenig Tod, Padgett Justin. *Wilderness Medicine Field Guide. 2ed Ed 2009*  
Setnicka, Tim (1981). *Wilderness Search and Rescue*.  
Tilton, Buck (2004). *Wilderness First Responder (2<sup>nd</sup> ed.)*.  
Wilkerson, James A. (2001). *Medicine for Mountaineering (5<sup>th</sup> ed.)*.

### **Wildland Ethics (All ICs)**

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 (2<sup>nd</sup> ed.)*.  
Nash, Roderick (2001). *Wilderness and The American Mind (4<sup>th</sup> ed.)*.  
Oelschlaeger, Max (1993). *The Idea of Wilderness*.  
Waterman, Laura & Guy (1993). *Wilderness Ethics: Preserving the Spirit of Wildness*.  
The Wilderness Act of 1964 [www.wilderness.net/index.cfm?fuse=nrwps&sec=legisact](http://www.wilderness.net/index.cfm?fuse=nrwps&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 (2<sup>nd</sup> ed.)*.

### **Leadership (All ICs)**

Bennis, Warren (1985). *Leaders*.  
\*\*Gookin, John & Shari Leach (2009). *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*.  
Taylor, Rob (1981). *The Breach*.

### **Rocky Mountain History (SIC)**

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 (All ICs)**

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 (SIC only)**

\*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 (SIC, ICS, PNIC, AKIC)**

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 (All ICs)**

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Ehrlich, Paul (1988). *The Birders Handbook*.  
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