



## **LEAVE NO TRACE MASTER EDUCATOR™ COURSE**

### **COURSE DESCRIPTION/TRAVEL INFORMATION/EQUIPMENT LIST**

Grand Canyon National Park, AZ

November 5-9, 2010

#### **COURSE DESCRIPTION**

During five days in this rich ecosystem, you will learn and teach the principles of Leave No Trace and discuss wildland ethics. Your group will be a mixture of federal agency partners, educators, outdoor retailers, youth group leaders and private individuals. Hiking distances are short to moderate and mostly on trails, although some portions of the route could be off-trail. The route will be approximately 10-20 miles long, with significant time spent in discussions and classes. Pack weights will be about 35-40 pounds. Weather will probably be generally mild but variable, with temperatures ranging from nighttime lows in the 30s to daytime highs in the 70s. Rain, snow and high winds are possible at any time.

#### **Features of the Course**

- Strenuous hiking on the Grandview Trail and Horseshoe Mesa. Steep and exposed trail through the Kaibab Limestone and Coconino Sandstone formations.
- Descend/Ascend 2500 ft in 3 miles
- Stunning views of the eastern Grand Canyon and Colorado River

The course will meet at the Shrine of Ages at 8:00 am Friday, November 5, 2010. The first day is spent in an indoor classroom and includes discussion of the history of the LNT program, an introduction to the LNT principles and final preparation for traveling in the backcountry. The group will camp together at Mather Campground on Friday, the first night of the course.

The backcountry portion of the course begins on Saturday morning, with three nights spent camping in the backcountry.

The course ends Tuesday afternoon. To allow time for cleaning equipment, completing evaluations and awarding diplomas, plan to depart no earlier than 2:00 p.m.

#### **Curriculum**

The Leave No Trace Center for Outdoor Ethics has designated NOLS as one of the five educational providers of Master Educator Courses. NOLS brings over 40 years of experience teaching wilderness skills and leadership to the LNT program.

Master Educator courses are informative, practical, hands-on and fun. You will learn skills and teaching techniques through lectures, skits and discussions in a spectacular outdoor setting. The course is designed for people who actively teach others outdoor skills or provide recreation information to the public and emphasizes three components:

- low-impact camping skills
- wildland ethics
- outdoor teaching techniques

### **Teaching Session**

Each participant will be required to present a short (15-20 min.) class on one of the LNT principles or how it relates to a specific activity, e.g., rock climbing or mountain biking. The class can be skills oriented or theoretical in content. Although some preparation time will be available once the course has begun, plan on having your class prepared before arriving at the course location. If you have questions regarding class presentations please refer to the teaching information on the LNT website <[www.LNT.org](http://www.LNT.org)> or contact the NOLS Leave No Trace office.

### **Environment**

Grand Canyon National Park encompasses more than 1.2 million acres. Most of Grand Canyon is remote backcountry that is very challenging to access due to prominent cliffs, remote entry points, few trails and scarce water sources. One of the most spectacular examples of erosion anywhere in the world, Grand Canyon offers incomparable vistas to visitors on the rim and in the canyons. On the South Rim the dominant trees are ponderosa pine, pinyon pine and Utah juniper. Below the rim, it's another world. Much of the inner canyon is considered desert with vegetation typical of that found in deserts, cacti and drought-resistant shrubs. Grand Canyon contains some of the most intact riparian systems in the Southwest. These important water sources support an impressive proportion of the park's plant diversity. Due primarily to the dramatic changes in elevation and environments, Grand Canyon reportedly has the second greatest plant diversity in the National Park System.

The park is home to a variety of animals. Mule deer are common throughout the park. Desert bighorn inhabit the remote slopes of the inner canyon, but are occasionally seen on established trails. Bobcats and coyotes range from rim to river and a small population of mountain lions exists. Small mammals such as mice, squirrels and ringtails are abundant. There are a variety of reptiles and amphibians and hundreds of species of birds.

### **Food and Equipment**

You will cook, travel and sleep in smaller groups of 3-4 and be together as a single group for class presentations and discussions. Camping in small groups allows participants more opportunities to learn and practice Leave No Trace techniques. Group equipment, such as stoves, shelters and cook gear, will be provided by NOLS (refer to equipment list for details on personal equipment). Food for the field portion of the course consists of typical NOLS rations including rice, pasta, grains and cereals and a variety of snack foods. Dry staples are supplemented with fresh fruits, vegetables, nuts and cheeses. If you have special dietary needs please notify the NOLS Leave No Trace office.

### **Enrollment Forms**

The following forms are available on the NOLS LNT website [www.nols.edu/lnt/lnt\\_application.shtml](http://www.nols.edu/lnt/lnt_application.shtml) and must be completed and received by the NOLS Leave No Trace office prior to the start of the course:

- Course Application

- Self-Screening medical form - **including cardiac screening section**
- Insurance Form - all course participants must have some form of medical insurance
- Acknowledgement of Risk and Release form

**Payment and Cancellation Policies - PLEASE READ CAREFULLY!**

Course tuition is **\$830** and includes a one-year individual membership to Leave No Trace, instruction, group equipment, meals and educational materials. Partial scholarships are available through the Leave No Trace Center for Outdoor Ethics. Please contact Sarah Folzenlogen at the Center for details <sarah@LNT.org> or 800-332-4100x107.

- **TO ENROLL, A COMPLETED APPLICATION AND A \$100 NON-REFUNDABLE APPLICATION FEE ARE REQUIRED.**
- **THE BALANCE OF TUITION IS DUE 45 DAYS PRIOR TO THE COURSE START DATE.**
- **IF YOU CANCEL YOUR ENROLLMENT ON A COURSE FOR ANY REASON, YOU WILL RECEIVE A REFUND AS SPECIFIED BELOW:**
  - Prior to 45 days before the course starting date, NOLS will retain the \$100 application fee.
  - Between 30-44 days prior to the course starting date, NOLS will retain 25% of the course tuition.
  - Between 15-29 days prior to the course starting date, NOLS will retain 50% of the course tuition.
  - Less than 15 days prior to the course starting date, and once the course has begun, there will be no refunds.

## **SAMPLE COURSE AGENDA**

### **DAY ONE**

- Course begins @ 8:00 am.
- Introduction to the Master Educator Course, history of LNT, role of research in LNT
- Principles of Education
- Principle One: Plan Ahead and Prepare

### **DAY TWO**

- Breakfast, packing, shuttle to trailhead/put-in, travel to first camp.
- Principle Two: Travel and Camp on Durable Surfaces.
- Principle Three: Dispose of Waste Properly.
- Introduce "Action Plans."

### **DAY THREE**

- Breakfast, break camp, pack up, and evaluate impact. Travel to second camp.
- Principle Four: Leave What You Find
- Principle Five: Minimize Campfire Impacts
- Principle Six: Respect Wildlife
- Work on "Action Plans."
- Introduction to Trainer Course Material

### **DAY FOUR**

- Breakfast, break camp, pack up, and evaluate impact. Travel to third camp.
- Principle Seven: Be Considerate of Other Visitors.
- Wildland Ethics
- Share and discuss "Action Plans."

### **DAY FIVE**

- Breakfast, break camp, pack up, and evaluate impact.
- How to run a Leave No Trace Trainer course.
- Course Evaluations.
- Final thoughts.
- Travel out, award diplomas, course ends.

## **TRAVEL AND LOGISTICS**

### **Start Time and Location**

The course will meet @ 8:00 a.m. at Grand Canyon Shrine of Ages.

### **Travel Information**

#### Airports

Phoenix airport accommodates most major carriers and is 4-5 hours from Grand Canyon. US Airways services the Flagstaff airport through Phoenix. The Grand Canyon Airport is about 10 minutes from the Park and is serviced through Las Vegas by two scenic tour companies, Air Vegas and Scenic Airways. Open Road Tours [www.openroadtours.com](http://www.openroadtours.com) offers airport shuttle services from Phoenix and Flagstaff to Grand Canyon's South Rim, as does Flagstaff Express [www.flagstaffexpress.com](http://www.flagstaffexpress.com). Train travel is also possible through Amtrak and the Grand Canyon Railway.

#### Accommodations

#### Motels

For those arriving early, Phoenix, Flagstaff and Williams offer a variety of accommodations and rates. The community of Tusayan (5 minutes from the park entrance) has several motels, and within the park Xanterra operates several lodges (Xanterra in Grand Canyon National Park 888-297-2757 or 303-297-2757).

#### Camping

For those wishing to camp, Mather Campground is the most convenient choice in the park. A group campsite has been reserved for Thursday night and is free for course participants. To use the site, check in at the campground entrance kiosk and the ranger will direct you to it. Outside the park, Forest Service lands offer free camping as well as pay campgrounds.

#### **Storage**

You will be able to store vehicles at the Backcountry Information Center Parking Lot.

#### **In Case of Emergency**

Contact NOLS Headquarters in Lander WY @ 800-710 NOLS.

#### **GROUP EQUIPMENT (provided by NOLS and course host)**

- shelters - 3-4 tents or tarps
- cook stoves and fuel
- cook pots and frypans
- cooking utensils
- trowels
- bulk water containers
- water disinfection (chemical, if you prefer a water filter please bring your own)
- first aid kits
- repair kits
- maps

## **PERSONAL EQUIPMENT (provided by participant)**

### **UPPER BODY CLOTHING**

- **2 - 3 insulating layers for the upper body.** These garments should fit comfortably over each other so they can be worn simultaneously. Cotton fabrics should be avoided since they have little insulation value when wet. Synthetic fabrics such as Patagonia Capilene® or Extend® are preferred.
- **Fleece Pullover or Sweater** - any secondary layer of 100 to 200 wt. polar fleece.
- **Synthetic or Cotton T-shirt** - to wear on warm days. Lightweight polyester or Coolmax® is encouraged because it dries more quickly than cotton.
- **Wind Shirt** - Nylon wind shell, preferably with a hood, (not waterproof) that fits comfortably over all upper-body layers. Gore-Tex is acceptable.
- **Rain Parka** - Gore-Tex or other laminates are recommended. Coated nylon or waterproof breathable jackets and parkas are acceptable. Ponchos are unacceptable.

### **LOWER-BODY CLOTHING**

- **Two insulating layers** that should fit comfortably over each other and underneath wind or rain pants. These should be light or medium weight base layer (long underwear) bottoms and either an expedition weight bottom or fleece pants.
- **Rain pants** - coated nylon or Gore-Tex rain pants. Gore-Tex pants may double as rain/wind pants.
- **Wind pants** - nylon shell pants.
- **Shorts** - lightweight cotton or nylon athletic shorts. These do not serve as an insulating layer.

### **FOOTWEAR**

- **Hiking Boots** - lightweight lugged-sole hiking boots that provide sturdy ankle support. (Packs generally weigh 35-40 lbs.).
- **Camp Shoes** - sneakers or lightweight running shoes to wear around camp.
- **Socks** - 75 to 100% wool, Merino wool, heavy rag type or synthetic/wool blends. Avoid cotton blends.
- **Gaiters** - not required but strongly recommended. Gaiters with double closure (i.e. both zippers and snaps) or 2" velcro.
  
- **Backpack** - Internal frame packs should have a volume of at least 5000 cubic inches. External frame packs should have a volume of at least 3500 cubic inches.
- **Sleeping Bag** - Down or synthetic bags with a minimum temperature rating of 30 degrees (depending on course location).
- **Sleeping Pad** - Thermarest® or closed-cell foam at least 3/8" thick.
- **Sleeping Bag Stuffsack** - compression stuff sacks are recommended for internal frame packs, and oversized stuff sacks are recommended for external frame packs.

### **MISCELLANEOUS CLOTHING**

- **Sun hat**
- **Fleece or Wool hat**
- **Neckwarmer**
- **Fleece or wool gloves**

### **MISCELLANEOUS PERSONAL GEAR**

- **Waterproof bag liners** - plastic trash compactor bags are sturdy and work well.
- **Personal Eating Utensils** - 1 each, cup bowl and spoon.
- **Disposable lighter or matches**
- **Water Bottle(s)** – You will need 1 gallon carrying capacity. 1 water bottle will work if you also bring a gallon plastic juice container with the bottom reinforced with duct tape.
- **Sunglasses**
- **Lip Balm and Sunscreen**
- **Toilet Articles** - toothbrush, toothpaste, comb, brush, skin lotion, etc.
- **Bandanna**
- **Watch**
- **Flashlight or Headlamp**
- **Pocket Knife**
- **Notebook and pen/pencil**
- **Camera/Film**

### **CONTACT INFORMATION**

NOLS Leave No Trace  
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E-mail: LNT@nols.edu