

# ACEER

FOUNDATION

## **Field Studies in Peru Geology and Environmental Studies of the Amazon Rainforest and the Andes**

*February 27<sup>th</sup> – March 8<sup>th</sup>, 2009*

**\$2,015 (from Lima)**

**In Association With  
West Chester University of PA**

**Deadline for registration/payment of \$500 deposit: Thursday, November 20, 2008**

**Day 01  
Fri, Feb 27th**

**USA / LIMA**

Flight from the USA to Lima, Peru. Transfer to the Hotel Bolivar. A short introduction to Lima and some useful information will be provided.

**In-flight dinner  
Overnight Lima – Hotel Bolivar**

**Day 02  
Sat, Feb 28th**

**LIMA / PUERTO MALDONADO**

After an early breakfast, we transfer to the airport for our flight to Puerto Maldonado. Puerto Maldonado, with a population of approximately 60,000, is the capital of the Madre de Dios region and is located at the confluence of the Tambopata and Madre de Dios Rivers. This small frontier town has a history of resource extraction beginning with the rubber boom, logging and gold prospecting, and more recently oil exploration. Despite this activity, 98% of the region is composed of primary rainforest. There are three national parks and reserves in the area that together comprise more than 3.5 million hectares of protected forest ecosystems. They are: The Manu Biosphere Reserve, Tambopata-Candamo Reserve, and the Bahuaja Sonene National Park.

We begin our experience in the region with a walking tour of the town and a visit to the local market where everything from produce, harvested from the surrounding forest, to live chickens and other animals, to motorcycle parts, and plastics are sold. We will walk around the city discussing environmental impact of human activities on the Madre de Dios watershed.

**Breakfast at the hotel in Lima**

**Lunch and dinner on own in Puerto Maldonado  
Overnight – Cabana Quinta**

**Day 03**

**PUERTO MALDONADO / LOS AMIGOS**

**Sunday, March 1st**

Early breakfast at the Cabana Quinta. In Puerto Maldonado we will board a bus for the 1-hour journey along the new Trans-Oceanic Highway linking the Brazilian Atlantic with the Peruvian Pacific to the port town of Laberinto. During a bus ride we will see number of outcrops exposing laterites, a highly weathered red soil, common in tropical climate. Transfer to boats in the frontier town of Laberinto for the approximately 4-hour trip up the Madre de Dios River. (If time permits, there will be a visit to the native community of Vuelta Grande).

Arrival at ACEER-Los Amigos at the confluence of the Madre de Dios and Los Amigos rivers. Welcome and introduction to the Center by the director of Los Amigos of the Amazon Conservation Association (ACA). ACEER-Los Amigos is a joint project of the ACEER Foundation and ACA. The Center is located within Los Amigos Biological Station (locally known as CICRA) which is owned and operated by ACA.

**Breakfast at Cabana Quinta**

**Lunch on the boat to Los Amigos**

**Talk and tour of the campus by Director of Los Amigos, approximately 1-1 1/2 hours.**

**Dinner at Los Amigos**

**Overnight at Los Amigos**

**Day 04**

**LOS AMIGOS**

**Monday, March 2nd**

Following breakfast, a hike along Trail 1 to Poso Don Pedro. This trail begins at the station, crosses several fluvial terraces, and enters maturing secondary forest. Flight of river terraces along Madre de Dios and its tributary formed as a result of neo-tectonic activity along the eastern slopes of Andes. A short spur will take us to the ACEER's Ethnobotanical Garden. The trail continues into older forest and a palm swamp, Poso Don Pedro. Here, the group will explore the perimeter of the wetland habitat and venture onto the small pond aboard a small catamaran. The trail will provide an opportunity to discuss landscape evolution under the influence of tectonic and climate changes, basic ecological principles of rainforests, and the changes that take place from human and natural influences. Poso Don Pedro will introduce concepts of aquatic ecology and the dynamic interface between aquatic and terrestrial ecosystems. Upon return to ACEER, the groups will stop at the Madre de Dios "Mirador" or overlook. The forest and river system seen is undergoing changes from mining, timbering and colonizing.

**Lunch at ACEER-Los Amigos**

After lunch, the group will take Trail 10 to the Los Amigos “Mirador” or overlook. Fluvial processes and forms, hydrology and sediment transport of local watershed will be discussed. This viewscape will provide the backdrop for a discussion on land protection in the Madre de Dios region. The area seen is fully within the Los Amigos conservation concession and protected from deforestation. On the way back, we will visit the ethno botanical gardens, created at Los Amigos by shaman Don Antonio Montero. There we will see indigenous plants from the region, some of them edible and others medicinal. Emphasis will be on the traditional uses of medicinal plants and the promise they hold for new, modern medicines. Traditional healing techniques will be demonstrated.

### **Return to ACEER-Los Amigos, dinner**

After dinner, there will be an evening activity. This may be a guest lecture by a resident researcher at CICRA or a night hike.

### **Overnight at Los Amigos**

#### **Day 05**

#### **LOS AMIGOS**

#### **Tuesday, March 3rd**

Following breakfast, the group will hike to Cocha Lobos, a typical ox-bow lake with resident giant river otters. The trails will traverse fluvial terraces and flood plains with mature secondary and primary forest, with examples of highland forest as well as very different floodplain forest. There will be excellent opportunities to view wildlife in intact rainforest habitat, and continue the evaluation of rainforest dynamics between aquatic and terrestrial ecosystems.

### **Lunch at ACEER-Los Amigos**

After lunch, the human presence in the rainforest will be assessed with visits along the Madre de Dios to the colonist town of Boca Amigos and nearby gold mining camps.

### **Return to ACEER-Los Amigos, dinner**

After dinner there will be an evening guest lecture or night hike.

### **Overnight at Los Amigos**

#### **Day 06**

#### **LOS AMIGOS / AGUAS CALIENTES**

#### **Wed., March 4th**

After a very early snack breakfast, we depart by boat for Labertinto, where we transfer to the bus that takes us to the airport for the flight to Cusco. A local guide will be waiting for us at the airport. A box lunch will be provided. Cusco is the oldest continuously inhabited city in the western hemisphere. A distinguishing feature of the city is the colonial Spanish architecture built upon the foundations of ancient Incan temples. A bus

ride takes us from Cusco through the Sacred Valley, to Ollantaytambo. This area reflects traditional ways of agriculture. Geologic history of Andes will be discussed at several stops. Due to global warming, and declining of glaciers traditional way of agriculture is changing in the region. In Ollantaytambo, we will board the train for a 90 minute ride along the Urubamba River to the town of Aguas Calientes at the foot of the Machu Picchu Mountain.

**Breakfast at Los Amigos**

**Box Lunch on the way**

**Dinner on your own at a local restaurant in Aguas Calientes**

**Overnight at Hotel Presidente in Aguas Calientes**

**Day 07**

**MACHU PICCHU**

**Thurs., March 5th**

After breakfast, we take a 06:00 am bus to Machu Picchu and climb up the hill to the Lost City of the Incas to see the sunrise. We will meet history in our two hours guided visit of the ruins. Machu Picchu is located on top of Vilcabamba batholith which dates back to 250 million years ago. Granite and other local paleozoic rocks were used by Incas to build the city. The beauty of the architecture and the landscape will fill our eyes as there will be opportunity to climb the Wayna Picchu (the mountain that appears in every picture of Machupicchu), or walk to the Sun Gate. Lunch will be on your own, either at the site at the Sanctuary Lodge, or in the town of Aguas Calientes, if you prefer. Dinner will be on your own in Aguas Calientes.

**Breakfast at hotel in Aguas Calientes**

**Lunch/Dinner on your own**

**Overnight in Hotel Presidente**

**Day 08**

**MACHU PICCHU / CUSCO**

**Fri., March 6<sup>th</sup>**

In the morning we will visit the hot springs in Aguas Calientes before boarding the train back to Ollantaytambo. We will board the bus for Cusco. On the way to Cusco, we will visit the Maras salt mines in the Sacred Valley. Upon arrival in Cusco we will check in to the hotel and then meet for dinner and a folklore show.

**Breakfast at Hotel Presidente in Aguas Calientes**

**Lunch – boxed Lunch**

**Dinner – Dinner and folklore show in Cusco**

**Overnight in Hotel Rumi Punku**

**Day 09**

**CUSCO/LIMA/OVERNIGHT FLIGHT TO USA**

**Sat., March 7th**

After breakfast, you will have some time to walk around the main streets in Cusco before our bus takes us to the airport for our early afternoon flight to Lima. Lunch on your own at the airport. A local guide will be waiting for us on arrival. We will have a bus tour of the cliffs and beaches along the coast of Lima. Finally, a farewell dinner awaits us at Mangos, a restaurant by the sea, prior to transfer to the airport for the late-night flights back to the USA.

**Breakfast at hotel in Cusco**  
**Lunch – On own in airport in Cusco**  
**Short tour of the city**  
**Dinner at Mangos**  
**Overnight in-flight to the USA**

**Day 10**  
**Sun., March 8<sup>th</sup>**

**ARRIVE IN USA**

Arrival in USA.

### **Included**

- Local Guides
- Return airfare (Lima – Puerto Maldonado – Cusco – Lima)
- Airport and hotel transfers in Lima
- Land and fluvial transport as scheduled in the itinerary
- Accommodation as scheduled in the itinerary
- Meals as specified in the itinerary
- Lima city tour
- Salt mine tour in Sacred Valley
- Fees related to activities outlined in the itinerary
- Administrative and logistical services and support
- All local taxes
- All local tips & services

### **Not included**

- International airfares
- Some meals, as indicated
- Snacks, alcoholic beverages & soft drinks

For more information contact:

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Total Cost: \$2,015 from Lima (International airfare NOT included) Deposit of \$500 and registration forms are due by November 20<sup>th</sup>, 2008. Final payment for the remaining cost is due December 19th, 2008. Mail checks to:

The ACEER Foundation  
P. O. Box 2549 - WCU  
West Chester, PA 19383

For West Chester University students – WCU will pre-pay the workshop travel costs. Set up a payment plan through the Bursar's Office. Credit is also available for this workshop, contact Dr. Daria Nikitina for a syllabus.