

**HWC 201 Heritage of Western Culture: Integrated Science  
The Earth -- Scientific and Cultural Perspectives in the Pacific  
Fall 2005 and January 2006**

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### **Course Meeting Times**

Fall 2005: Thursday 7:00-9:00 PM, Moody Science 10 (See below for specific meeting times)

JanTerm 2006: January 3 – January 24, New Zealand and Hawaii

### **Course Description**

During the last quarter of the previous millennium, European settlers, equipped with advanced tools and Enlightenment ideas, swept across the oceans and introduced new ways of thinking about every facet of life. One significant change involved new ways to study and understand nature. These modern scientific methods were put into practice alongside, and often in contrast to, indigenous perspectives of the Earth. This course will allow students to explore these contrasts in two places in the Pacific: New Zealand and Hawaii.

In the fall, students will explore relationships between science and society by reading and discussing important works on indigenous and modern views of nature. Earth will be studied as a system in which fundamental interactions occur among living organisms, land, atmosphere, and ocean. Understandings of nature will be also studied as an integral part of culture. This course will meet nine times during the fall semester. Successful completion of the fall component is required to pass the course.

In January, our classroom becomes nature itself. Participants will spend fifteen days in New Zealand and five days on the Big Island of Hawaii exploring nature with local experts both from a scientific perspective and from the perspective of native peoples. Students will directly observe natural phenomena such as volcanoes, glaciers, geysers, subterranean rock formations, ocean currents, marine life, and the night sky. They will witness relationships among these natural wonders, the local people, and their customs.

This course will place unique demands on participants. The travel portion will require significant physical activity. Students will hike, raft, and sea-kayak considerable distances to observe pristine environments. Accommodations will often be rustic. A positive team-oriented attitude will be essential for a successful experience.

### **Course Objectives**

- To examine indigenous and scientific views of the Earth, including historical influences, connections, and disparities
- To understand the Earth scientifically as a complex, interconnected physical system
- To explore natural surroundings in the Pacific, including geological, biological, and environmental aspects of New Zealand and Hawaii
- To experience ancient and modern cultures of New Zealand and Hawaii through authentic interactions with local inhabitants
- To experience high adventure team building in unique and challenging environments

### **Required Reading**

Dowling, C. (2002): *Insight Guides New Zealand*, Langenscheidt Publishers, 350 pp.

Rutherford, S. (2003): *Insight Guides Hawaii*, Langenscheidt Publishers, 354 pp.

Selected readings from...

Frierson, P. (1991): *The Burning Island: A Journey Through Myth and History in Volcano Country, Hawaii*, Random House, 267 pp.

Pawson, E. (2002): *Environmental Histories of New Zealand*, Oxford University Press, 304 pp.

Articles on Earth System Science from *National Geographic* and the United States Geological Survey (USGS).

### **Fall 2005 Component Course Requirements**

Successful completion of the fall component is required to pass this course.

*Participation:* Attendance at the fall course meetings is required. Students will actively participate in class discussions on required readings and other lecture material. (10% of your total course grade)

*Presentation Preparation:* Students will give a presentation during the January component of the course (see below). The presentation should be developed during the Fall term.

*Reading Assignments:* In preparation for lectures and discussions, you will be given questions over the reading assignments that will be turned in at the beginning of each applicable class (10% of your total course grade).

*Exam:* An exam will be given near the end of the fall semester on material from the

readings, lectures, and videos. (20% of your total course grade)

### Fall 2005 Tentative Schedule

September 22, 2005	Course Overview
September 29, 2005	Current Culture and Geopolitics <b>Topics for Presentations</b>
October 13, 2005	Science as a Way to Know
October 20, 2005	The Amazing Earth (and Equipment Check)
October 27, 2005	The Whale Rider
November 5, 2005 (Saturday)	Group Hike
November 10, 2005	Science and Culture of New Zealand: Yesterday, Today, and Tomorrow
November 17, 2005	Science and Culture of Hawaii: Yesterday, Today, and Tomorrow
December 1, 2005	<b>Exam</b> (and Final Travel Arrangements)

### JanTerm 2006 Component Course Requirements

*Presentation:* Students will give a 15-minute presentation during the trip on a particular aspect of the region. For example, a student might lecture on ancient Maori traditions during our stay on the North Island of New Zealand. These presentations should provide interesting details to the audience beyond that covered in the required texts. These presentations will usually occur during our dinner meal, but may occur at other times of the day if more appropriate. Students are expected to research their topics extensively before the trip, but additional information gained during the trip can be used to augment the presentation. Specific topics will be distributed at a later date. (25% of your grade)

*Portfolio:* Each student will be required to keep a portfolio that documents her/his own travel experience in the Pacific. The portfolio may include diary entries, sketches, photographs, etc. Specific guidelines will be distributed at a later date. (25% of your grade)

*Participation:* We will be exploring New Zealand and Hawaii in physically and mentally challenging ways. Success relies on teamwork. Each student is expected to actively participate in group activities, to be supportive of other members in the group, and to be respectful of cultural differences in New Zealand and Hawaii. (10% of your grade)



spend some of the morning showing you some of our favorite spots in Rotorua, check out a local museum, and then explore the virgin forest around beautiful Lake Okataina - the most untouched lake in the area and still unknown to many New Zealanders! We'll make our way alongside clear, deep waters past the site of an ancient Maori settlement. We'll then continue through this pristine slice of New Zealand natural history and over a divide to the shores of Lake Tarawera. Here we will have our lunch while admiring the impressive Mt Tarawera, scene of the most tragic eruption in this very active volcanic region. On this undulating day-hike we'll be amongst spectacular native ferns and trees – and we will also see also a wide variety of native birds, both alongside the track and on the lake itself.

Afterwards we head south to Lake Taupo (the biggest volcanic crater-lake in the world), and then on to Taupo or Turangi, where we'll be camping at the lake's edge. Great views of the lake and the volcanoes to the south.

Accommodation: camping                      Meals: B,L,D

### **Jan 8                      Taihape to Picton**

Today is mainly a travel day, as head south to Wellington, the capital of New Zealand. Here we'll visit Te Papa, the modern national museum, for a couple of interesting hours. Then we'll board the Arahura, the inter-island ferry, and cross Cook Strait to Picton, at the very top of the South Island.

Accommodation: camping                      Meals: B,L

### **Jan 9                      Nelson Lakes Hiking – West Coast**

Today we head down to Lake Rotoiti, on the northern edge of Nelson Lakes National Park. This is a beautiful lake, set in a classic beech ecosystem. We have a big hike here, up to the Robert Ridge, which enjoys great views of the mountains, forests and lakes that make up this area. In the late afternoon we'll head to the West Coast area - 500 miles of coastline with a population of only 40,000 people on the whole coast! For dinner this evening, we'll stop at the tiny seaside settlement of Charleston to pick up the quintessential Kiwi dinner – fish and chips! If it's a fine evening, we'll enjoy our fish and chips on the beach before heading south down the stunning coastline towards the coastal village of Punakaiki.

Accommodation: camping                      Meals: B,L,D

### **Jan 10                      Hiking in Punakaiki & Beach at Okarito Lagoon**

We'll spend most of the day in Punakaiki to hike amongst the limestone canyons and lush rainforest of the Inland Pack Track. The gold miners who first opened up the area over a century ago originally established this trail. We'll also check out the Pancake Rocks and the Blowholes. This is one of our favorite places in the world, and you'll see why. Finally we'll leave in the afternoon to drive down the scenic coastal road, stop at Hokitika to check out a local greenstone workshop and gallery, and then carry on to Okarito Lagoon, a gem of the West Coast that is all but untouched due to it being 10 miles down a one-way road from an obscure highway turnoff. There are no shops, no restaurants and no traffic here... and a population of only 31 people!

Accommodation: Okarito Beach House, if available – otherwise camping                      Meals: B,L,D

### **Jan 11                      Kayaking in Okarito Lagoon, Hiking & Beach**





very important in this area, as it is a true alpine climate notorious for sudden weather shifts. If we aren't able to do the Mueller hike, we'll take an impressive hike up the Hooker Valley to a glacial lake at the base of the Hooker Glacier, complete with icebergs! Then we head back to the shearers' quarters for the last night. We'll enjoy a traditional Kiwi roast dinner – with vegetarian options of course – and enjoy a cold drink as we sit outside and watch the sun set on Mount Cook.

ACCOMMODATION: Shearers' quarters, Braemar Station. Meals: B,L,D

**Jan 19 To Christchurch, Departure for Hawaii**

We'll leave after breakfast for the three-hour drive to Christchurch, and arrive early afternoon for the flights to Hawaii.

Meals: On your own.

**Jan 19 Arrive in Hilo, Hawaii**

We will cross the International Date Line and arrive in Hawaii before we left New Zealand!

Accommodations: Hilo Hawaiian Meals: On your own

**Jan 20 Keck Observatory**

We will get a late start today to help with the jet lag. In the afternoon, we will travel to the Keck Observatory on Mauna Kea, perhaps the premier astronomical observatory in the world. Amazing views of stars, planets, and galaxies through big telescopes will help our understanding of Earth's place in the universe.

Accommodations: Hilo Hawaiian Meals: D

**Jan 21 Hawaii Volcanoes National Park**

Today we will explore Kilauea, the most active volcano on Earth. Hikes will take us through rain forests, lava tubes, and volcanic calderas. With a local geologist, we will walk on the newest land on Earth. Nighttime viewing of lava will be a highlight.

Accommodations: Hilo Hawaiian Meals: L, D

**Jan 22 Climate from Hilo to Kona**

Today we will cross the Big Island of Hawaii from the windward side to the leeward side. Hikes will explore the numerous climate zones on the island, from rainforest to desert. We will spend our last night in the tropical paradise of Kona.

Accommodations: Royal Kona Resort Meals: On Your Own

**Jan 23**

**Snorkeling in Pristine Marine Environment, Depart for DFW**

A morning snorkeling cruise to Kealekekua, a pristine offshore coral reef, will offer an amazing opportunity to experience underwater life in the tropics. The afternoon will be free to explore the Kona side of the island. We depart in the late evening for home.

Meals: B, L

**Jan 24**

**Arrive in DFW**

**Trip Rules**

1. If at anytime anyone is involved in any illegal activity, most specifically drug use, that person will IMMEDIATELY be sent home forfeiting the remainder of the trip and receiving an F in the course. Drugs are widely available and the possession of drugs by one member of our class would endanger the whole group. Americans abroad are frequently offered drugs, so let's be clear --ANY drug use will mean you go home at once or if you're not so lucky-**JAIL**.
2. No one is to be alone (without another member of our class) at any time. This is not an insignificant rule. While New Zealand and Hawaii are safer than many parts of the U.S., we expect you to be with another class member at all times.
3. Please behave in a respectful, responsible manner. We are visitors to another culture. Our objectives for this trip include observing and interacting with people from a different culture. There will be ways of doing things that differ from what you normally do. Patience and respect are expected. Not only do you present yourselves, you represent Austin College and the United States. The same level of respect is expected toward group members. Disagreements may arise, but fighting will not be tolerated.
4. Please be on time to all activities.

## Trip Costs

Air	\$2536
New Zealand Land	\$2588
Hawaii Land	\$ 710
Miscellaneous Expenses (Tips, etc.)	\$ 187
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Business Office Payment	\$6021

An initial down payment of \$100 is due at May registration. The next payment of \$2960.50 is due on October 3. The final payment of \$2960.50 is due on November 1.

Out-of-Pocket Expenses	
Books	\$ 45
Meals	\$270
Optional Activities	\$100
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Total Out-of-Pocket	\$415

Additional out-of-pocket expenses not listed above include clothing, equipment, passport fees, and other personal items. The amount of money you take depends on how much you plan to spend on souvenirs and entertainment. Any money (except small amounts) you carry should be in the form of American Express Traveler's checks. **DO NOT** carry other brands of traveler's checks!!

## Equipment List

You will soon get an equipment checklist from Active New Zealand. If you need to purchase equipment, there are a number of good web sites such as [sierratradingpost.com](http://sierratradingpost.com), [rei.com](http://rei.com), and [campmor.com](http://campmor.com). For gear reviews, check out [backpacker.com](http://backpacker.com) or [outdoorreview.com](http://outdoorreview.com). The following are general requirements and recommendations:

For footwear, you can use day-hiking boots or trail shoes. You will also want some shoes for the water. For clothing, we will use the layering technique. You will probably be happy with quick-drying stuff. If possible, please avoid cotton. You will need to wash your clothes periodically without the benefit of washers and dryers. The following list is from Active New Zealand.

### Required:

Sleeping bag (20 degree), day pack, hiking boots, waterproof jacket and pants, 2 wool or fleece sweaters, fleece jacket, warm socks, thermal underwear, warm hat, sunhat, swimwear, and water shoes.

### Recommended:

Camera, insect repellent, sunblock, water bottles, flashlight, warm gloves, gaiters, walking poles. (Neither of us will bring gaiters, Mike is bringing walking poles.)

## **Items/Information required before January**

1. **Passports** - You will need a passport for the trip. If you don't already have a passport that will be valid at least six months past our stay in New Zealand, you will need to renew your passport or get one. Applications can be obtained at the US Post Office here in Sherman. Please start the process ASAP. If you will be traveling on a **non-U.S. passport, please let us know**. You will not need a visa.
2. **Release Forms** - Release forms for Austin College, Active New Zealand, and the University of Hawaii must be turned in prior to your departure at the end of this semester. You will also need to fill out an Austin College Field Biology Safety Contract. These will be distributed in the near future.
3. **Medical Authorization** - All of us need to sign a medical authorization form. These will be given out in the near future with the release forms.
4. **Required Insurance** - Every AC student is required to purchase travel health and emergency insurance through AC. The price is included in the total course cost billed. Details will be provided to you.
5. **Contact Information** - Prior to the end of the fall semester, we will need to have your address and telephone number for the Christmas break. We'll also need your parent's telephone number and address for January.

## **Travel Considerations**

1. **Medical Preparation** - In New Zealand, you should observe health precautions similar to those that would apply while traveling in the United States. This information was provided by Center for Disease Control (CDC) website <http://www.cdc.gov/travel/austspac.htm>. Please refer to this website for additional information.
2. **Safety Concerns** - You will probably be safer where we will be than in most large U.S. cities. However, we will be in virgin rain forests and other natural habitats. There are several dangers – the worst of which is probably bees and other insects. If you are allergic to insect stings you should carry antihistamines and a syringe to give yourself an injection of adrenaline (an automatic syringe can be purchased at drug stores with a prescription).
3. **Health Considerations** - We will discuss in detail some of the ways in which you can minimize the chance of contracting intestinal problems or other illnesses. In particular you should plan on avoiding any unpurified water (including ice) and any uncooked fruits or vegetables that you cannot peel. It is also particularly important that you avoid any uncooked seafood.

If you are concerned about intestinal problems, you might consider getting a prescription for some antibiotic to take in case you develop problems. If you are allergic to insect bites or stings **YOU SHOULD CARRY** appropriate medication with you. **Please consult your own physician for specific recommendations.**

4. **Weather** – Temperatures in New Zealand will range from 40 to 80 F. Winds blow consistently from 10 to 30 mph, producing wind chills below freezing. In Hawaii, we will explore from sea level (temperatures 60-80 F) to the top of Mauna Kea (where snow can exist). Rainfall can occur at any moment, especially along the coasts. Proper attire, including rain gear and layered clothing, is essential.
5. **Luggage** – We recommend bringing a large duffle bag and a day pack which doubles as your carry-on luggage. Do not carry excess clothing, valuables, jewelry, etc. We will face weight and space limitations and will either have to pay extra or discard excessive items. Also, since you will probably want to bring back some items purchased in New Zealand and Hawaii, leave yourself some extra room. We will be carrying, loading and unloading our bags frequently. If you bring a lot of excess stuff your arms will probably be several inches longer upon your return.

For the flight to New Zealand, you will want to wear and/or have in your carry-on bag all essential items. Essential items may include hiking socks and boots, hiking pants, sun hat, windbreaker, water bottle, camera, film, extra batteries, medicines, personal hygiene items, copy of passport, and other critical items. Your passport, traveler's checks, credit cards, driver's license, etc., should be in **an around-the neck or waist traveler's pouch and should NEVER be off your person.** Do **NOT** carry a wallet with unneeded credit cards, etc.

### **Mental and Physical Conditioning**

In this course, we will blackwater raft, sea-kayak, and hike through mountainous regions. To have the best possible experience on this trip, you need to be mentally and physically prepared.

The best mental preparation is a positive attitude. This may sound silly, but the simple mantra “I think I can, I think I can” can carry you a long way. There will be times when you may want to quit. The other members of the team will assist you in any way possible. We are in this together.

You will be much happier in January if you get into shape now. To prepare for this trip physically, you should be participating in some physical activity *at least* three times a week for 30 minutes. Lifting weights, push-ups, and pull-ups will help out with the paddling demands. Jogging and stair stepping will help prepare for hiking. Still, nothing conditions your body better for paddling and hiking than paddling and hiking. If you get a chance to go for some hikes, just do it! The more your feet are used to your boots and the more your back is used to a pack, the better.

