Where will I go?
Our primary destinations will be the Black Hills in South Dakota, Makoshika State Park in Glendive, Montana and the Yellowstone National Park in Wyoming. Participants will explore the Greater Yellowstone Ecosystem from ecological and geological perspectives. While on the road to and from Yellowstone, the group will stay at local motels (multiple occupancy). The K Bar Z Guest Ranch in Cody, Wyoming will be the group’s primary residence while in the Yellowstone area. Presentations on the topics of carnivore ecology, botany, mining, and human environmental impacts, fire ecology and paleontology will be offered on site. We will also talk to park rangers, researchers and other experts in the area. Students will have opportunities to use global positioning systems and other field survey equipment for the study of geology and ecology.

What will I study?
Plants and animals and their adaptations will be identified in a number of ecosystems. Students will participate in ecological data collection. Visits are planned to a variety of biomes, from alpine meadows to rivers carving spectacular canyons, to the fragile “badlands.” The environmental impacts of human activity and the current land use issues will be explored. In addition, we will have the opportunity to observe the aftermath of various forest fires in the Yellowstone area, see some of the best geology that the West has to offer and discover how geologic processes have led to the development of the present ecosystems. We will study present and paleoecosystems and visit geothermal sites, fossil beds, mines and caves.

Who can come?
This course is open to all university students, or anyone else who has serious interest in these topics. Teachers who have participated in the past have returned to their classrooms with a wealth of materials including slides, photos, minerals and fossils.

Monday, August 1 through Friday, August 19, 2011

Mark your calendar and take this opportunity to experience a slice of the American West, to study ecology and geology, and to sample the spirit of this region of our country.

To receive an application packet and additional information, please contact:
Terry Behlke, Continuing Education, UW-Whitewater, Roseman 207C, 800 W Main St., Whitewater, WI 53190
Phone: 262-472-1003 (direct), Phone: 800-621-5376 (toll free), cetravelstudy@uww.edu
Or visit our website at http://www.uww.edu/conteduc/travel
DAY 1: Monday, August 1
We will depart Whitewater in the morning. As we travel, discussion will include unique features of Wisconsin geology. We will also discuss climate changes, unique vegetation and biomes. Throughout the trip ecology or geology stops may occur as opportunity presents.

DAY 2: Tuesday, August 2 (Glendive, MT)
Today we will travel to Glendive MT. We'll work in the field for several hours in the evening.

DAY 3: Wednesday, August 3 (Glendive, MT)
We will leave the motel and work in the field for several hours. We will then tour Makoshika State Park where discussion will include extreme desert habitats as well as Cretaceous depositional environments. Next we will head to the Yellowstone River to cool off and look for specimens to analyze. During this time various stream sampling devices will be introduced and we will perform some basic water chemistry. Continuing on, we will look for fossils; study the stratigraphy of the Pierre Shale, Fox Hills Sandstone, and Hell Creek formations.

DAY 4: Thursday, August 4 (Cody, WY)
Leaving in the morning, we will arrive in Cody at the K Bar Z Guest Ranch & Outfitters in the early evening. Upon arrival, we will establish a trap grid for small mammals.

DAY 5: Friday, August 5 (Cody, WY)
Today we will tour the region around K Bar Z Ranch and establish a trap grid for small mammals.

DAY 6: Saturday, August 6 (Cody, WY)
We will take a hike around the K Bar Z Ranch to observe plant communities, local geology, biomes and the effects of forest fires on the ecosystems. We will also learn how to use GPS and engage in mapping work.

DAY 7: Sunday, August 7 (Cody, WY)
We will check small mammal traps in the morning and evening but the rest of the day will be a free day to explore Cody, WY, visit a museum or go to a rodeo. There are also horseback trips and fishing offered by the K-Z.

DAY 8: Monday, August 8 (Cody, WY)
We will begin our day by taking a short drive to Lamar Valley. Upon arrival Dr. Jim Halfpenny will speak on carnivore ecology of Yellowstone National Park and the reintroduction of wolves. We will learn various techniques for observing large carnivores and interpreting their behavior. We will also try to view a wolf pack. There will be a test in the evening.

DAY 9: Tuesday, August 9 (Cody, WY)
We will visit several sites associated with the New World mine. Discussion at the mine site will include the impact of the gold mines in the area, reclamation efforts, mineral collection at tailing pile and comparison of mined and non-mined areas.

DAY 10: Wednesday, August 10 (Cody, WY)
We will begin our day by crossing the Beartooth Mountains to Rock Creek overlook to study alpine glacial processes and ecology. In the afternoon, we will stop at Beartooth Lake to study landslides and ecologic disturbance and at Beartooth Pass to study tundra biomes and permafrost geology.

DAY 11: Thursday, August 11 (Cody, WY)
After breakfast, we will view the Grand Canyon of the Yellowstone and the Tower Falls basalt flows. We will see effects of hot springs on geology and ecology. We will then take a hike in the forest and meadows at Mt. Washburn and Cascade Lake to study these two major ecosystems. We will also examine areas for fire destruction and recovery.

DAY 12: Friday, August 12 (Cody, WY)
We will be traveling to Yellowstone National Park to study the two major types of geothermal features found in the park (Norris Geyser basin and Mammoth Hot Springs). We will also stop at Obsidian Cliffs and the Golden Gate lava flows and explore the volcanic activity that produced the park.

DAY 13: Saturday, August 13 (Cody, WY)
Today there will be a lecture at Beartooth Lake about Devonian times. We will also hike from Clay Butte fire tower to fish fossil sites.

DAY 14: Sunday, August 14 (Cody, WY)
Today will be a free day to explore the town, visit a museum or go to a rodeo. There are also horseback trips and fishing offered by the K-Z.

DAY 15: Monday, August 15 (Spearfish, SD)
We will take a trip to Sunlight Basin, in the Absaroka Mountains, to study stream orders, stream ecology and invertebrates. We will also take a look at White Mountain, a volcanic neck.

DAY 16: Tuesday, August 16 (Spearfish, SD)
Today we will travel to Spearfish. We'll visit Jewel Cave, study the geology and ecology of the Black Hills, visit a feldspar mine and talk with Jace Decory on the importance of the Black Hills to American Indians.

DAY 17: Wednesday, August 17 (Hulett, WY)
Today we will finish up with the Black Hills and travel to Hulett, WY. We will tour Devils Tower and discuss the formations of this feature.

DAY 18: Thursday, August 18 (Mitchell, SD)
After breakfast, we will travel to Mitchell with stops along the White River for fossil collection from the Pierre Shale. There will be a test in the evening.

DAY 19: Friday, August 19 (Whitewater, WI)
We will depart in the morning and arrive in Whitewater in the evening.
Contacts/Program Costs

To request an application packet contact:

Terry Behlke
Continuing Education Travel Study
800 W Main Street, Roseman 2017C
University of Wisconsin-Whitewater
Whitewater, WI 53190
Phone: 262-472-1003 (local area)
Phone: 800-621-5376 (toll free)
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OR

For academic questions contact:

Dr. George Clokey
Biological Sciences Department
800 W Main Street, Upham 311
University of Wisconsin-Whitewater
Whitewater, WI 53190
Phone: 262-472-5140
clokeyg@uww.edu

Cost: $2,650 Wisconsin resident (an additional $75 for non-residents). Based on 20 full paying participants. Includes lodging (19 nights), transportation, meal allowance, entrance fees, all instructional costs including tuition for three undergraduate or graduate credits. Financial aid may apply.

Travel Itinerary
Yellowstone National Park Field Experience
August 1 - August 19, 2011