BIOLOGY 4156, Alpine Ecology

INSTRUCTOR: Dr. Richard J. Douglass
TEXT: None, but bring field guides for plants, birds and mammals if you have them.
DATES: 20 August through 26 August 2012 (be in van in CBB parking lot by 9:00 am, 20 August). LOCATIONS: Various places in the mountains surrounding Yellowstone National Park. These include camps near the Chain lakes (20 - 22 Aug) on the Bear Tooth Plateau, Eagle Creek near Gardner (22 - 24 Aug), Mt, and Beaver Creek near Quake lake (24,- 26 Aug).

OBJECTIVES OF COURSE

The objective of this course is to Allow students to form and test hypotheses about ecological phenomena under field conditions. Students will be required to formulate their own hypotheses, devise ways to test them, collect data and prepare a high quality paper presenting their findings. Oral and Poster reports will also be required. Students will work in groups of three or four. Possible projects include: effects of altitude on plant communities or tree height, effects of population density on elk calf production, effects of elk browsing on willow and aspen growth and regeneration and impact of grazing on grass biomass.

GRADING

There will be three grades given at the end of this class. These are: A, F, or Incomplete. The grades will be based on a term paper submitted before the end of fall term as well as poster and oral presentations. The paper must be in an appropriate format, explain the hypotheses tested, present appropriate data and data analysis and have a good literature based discussion. More information concerning the paper will be supplied when the course begins. Papers can be re-submitted as many times as is required to obtain an A. Posters and oral presentations will be "peer" reviewed by the class. Due dates for posters, presentations and papers will be determined during field studies.

LOGISTICS

The college will furnish one 14X16' wall tent plus smaller tents and all cooking equipment. If you want to bring a small (very small) back pack tent, you may. Vehicle charges will come from your lab fee. We will be camping during the entire time we are away from campus. We will "visit" town a couple times to re-supply.

Rick will do most of the cooking. Assistants will be assigned each day. We will collect $90.00 from you as you get into the van on the 23th. This will be used to purchase food. At the end we will divvy up what is left. If you want to buy snacks and other types of crutches on your own, you may. You will be stuck for the first three days with my choice of food. After that we can negotiate something different.
RULES

Students are expected to abide by all aspects of the Montana Tech Student Handbook. You are also expected to abide by all State and Federal laws. Specific rules for overnight field trips are:

1. Do not leave camp without telling the instructor where you are going and how long you will be gone.

2. Do not disturb any person in the camp ground.

If you break either of these rules (there are no second chances), Rick will take you to the nearest town and place you on a bus for Butte.

EQUIPMENT:

Besides the normal socks sorts shirts stuff (don't bring too much of this), you will need:

- note books, pencils etc.
- calculator
- day pack
- sleeping bag
- small back pack tent if you wish but I will have plenty of tents
- sleeping pad (smallish)
- eating utensils, plate, cup, bowl
- field boots
- camp shoes (flip-flops or running shoes).
- rain coat
- hat
- sun glasses
- jacket
- mosquito repellent
- swim suit (our only showers will be in creeks, lakes or rivers)