Orienteering (10 points)

A. Compass Course: (7 points possible, ½ point will be deducted for each stake you are from the correct ending location up to a 4-pt deduction).

Start/End: The start/end of each course consists of 20 consecutively numbered stakes running from west to east, spaced 5 feet apart for 100 feet.

Pace: First, you must determine your pace. Walk normally from the first to the last stake, counting how many paces it takes. Divide 100 feet by number of paces to calculate feet traveled per pace (e.g., 33 paces = 3.03 ft/pace). You should do this 2–3X and average them. You may want to bring your calculator.

Orienteering: After determining your pace, you will be given a card that has a starting stake number (e.g., 1, 5, 10), where you will begin your unique course. Also on the card, there will be 3 headings and distances that you must orienteer (e.g., 288° for 69 feet, then 348° for 70 feet, then 146° for 108 feet). After completing the third heading and distance, you should arrive back to the start/end of the course at a stake. You will record the stake number and be graded (see above) on how close you are to the correct end stake.

B. Shooting azimuth at fixed location: (3 points possible, ½ point will be deducted for every 2 degrees you are from the correct azimuth).

Exercise: You will be shooting an azimuth/heading at a fixed object from a designated spot. Once at the designated location, you will use your compass to obtain an azimuth for a designated object in the distance. Record the azimuth, and you will be graded on its accuracy.

GPS (10 points)

A. Navigation to UTM coordinates: (5 points possible)

Setup and grading: For each location, there will be flags numbered 1–5. None of the flags will be within 5 m of each other (the accuracy of the GPS units). One of the 5 flags will be the correct UTM location. You will record the flag number that you decide is correct. You will be graded on the accuracy of finding the correct location, where the correct flag = 5 points, 1 flag from it = 4 pts, 2 flags from it = 3pts, and did not find the location = 2 pts.
**Step 1:** Upload the random UTM coordinates, which will be given to you, to the GPS unit.

**Step 2:** Using the map and navigation functions and Kyker maps (on website), navigate to your location and record the flag number. You then will be graded.

**Step 3:** Now, create a point feature and log (download) the location for each of the 5 flags for the next portion of the exercise (see below).

**B. Transferring files and geo-correcting:** (5 points possible, due 9/6, 12:30 pm)

**Step 1:** In the field or after lab, use Pathfinder Office to transfer your UTM locations file to your laptop.

**Step 2:** Now, geo-correct your file using Pathfinder.

**Step 3:** Copy and past the log from the Differential Correction Window to MS Word. To do this, highlight the entire log and copy it (Ctrl + C), then and paste (Ctrl + V) into a MS Word document. **Note:** You will not be able to right click, select, and copy. You must use the control, C, and V keys.

**Important:** When geo-correcting your files, use the Pellissippi State base station as shown in class, because it is the closest to Kyker and will be the most accurate. However, frequently the Pellissippi website goes down. If this happens, use another base station nearby, such as Franklin, NC, Haywood NC, or Marshall. **Do not wait until immediately before class to do this, because it may take couple of attempts to geo-correct due to base station availability.**

**Within groups, the above assignment will be performed in pairs.** Each pair can work together to complete the exercises but cannot receive guidance from other pairs.

**POST Pathfinder Log to Blackboard (discussion board).**

(ACCESS TO POST THIS ASSIGNMENT TO BLACKBOARD WILL BE SHUT OFF AT 12:30 P.M. ON TUESDAY, 6 SEPTEMBER 2005)

Also for Lab 1, bring plant collecting materials (pencil, labels, and garbage bags). Identification of common grassland plants will be covered at the beginning of this lab. It is suggested you all work in pairs, where one person collects the plant specimen and records the name from the instructor, and the other attaches labels and places plants in a garbage bag to put in the plant press later.