

## **Navigation/Orienteering Exercise**

Form 10 teams of 2, 1 team of 3. Inform Minga or Dan who's on your team.

### **Equipment :**

map provided by instructor plus your own maps (if needed), compass, GPS, extra set of batteries, water, snacks/lunch, lighter/matches, sunglasses, radio, high viz vest and hardhat, extra set warm socks, whistle, knife

### **Procedures:**

#### **Before heading out:**

##### **1. What is your safety bearing?**

Take a waypoint at the Ski Tuonela village. Name it after your last name + village, e.g. *boudreavillage*. Estimate where it is on your map (1 mm = 22 m on the topo map, or 1 cm = 217 m). I know you know these, but just in case:

- Ground distance (m) = Map distance (m) \* MSR
- Map distance (m) = Ground distance (m) / MSR
- Map scale reciprocal = 
$$\frac{\text{Ground distance between 2 points (m)}}{\text{Map Distance between same points (m)}}$$

##### **2. Collect 6 waypoints from Minga or Dan, and enter all six into your GPS. Label each one with your lastname + tuonela + number, e.g. *boudreautuonela1*, *boudreautuonela2*, etc**

##### **3. Estimate where these waypoints are on your map.**

##### **4. From a map shown to you, draw remaining 2 waypoints on your map, and figure out easting and northing for each of these waypoints (1 mm = 22 m on the topo map, or 1 cm = 217 m). Enter these into your GPS.**

##### **5. Plan your route to be most efficient.**

##### **6. Check in with Minga or Dan before departing, showing us that you have the waypoint for the village, the other 8 waypoints, know the safety bearing, and know what time to be back at the village. Failure to do step #6 will disqualify you.**

#### **On your route:**

Use your GPS to show you how far you are from each waypoint, and the azimuth to that waypoint. You will want to use your compass for navigating between waypoints. At each waypoint, locate the flagging tape and plastic bag next to it with a letter inside it. Collect one letter at each waypoint.

When you return with all 8 letters, figure out what word is spelled out by the letters. The first group to spell the word gets first prize, the second group gets second prize, third group gets third prize.

Do not team up with other groups. If found moving together, groups will be disqualified (unless you're having technical or other difficulties).

### **Safety considerations**

Know your safety bearing *before* heading out on your course.

Be very careful on snow-covered ponds, other frozen surfaces or sinkholes. Avoid where possible.

Don't hang onto or push snags.

### **Prizes** (to be received upon return to campus)

First place: 2 lunch passes at NSCC cafeteria, including main dish, beverage and desert

Second place: 2 \$5 gift certificates from Tim Horton's

Third place: 2 NSCC multi-colour highlighter markers

### **Have fun!**