**Part 1: Forest Plot Sampling** **(30 minutes)**

*Protocol*: Measure all aspects requested below on your assigned plot. Azimuth to each tree should be measured to the tree’s base. Distance to each tree to the tree’s center from the plot center pin. The plot sampling is worth 25 points.

Then, calculate the stand-level density metrics as listed. Use any blank space (e.g., on the back of this sheet) to **show all of your work** in making your calculations.

Plot number: 2 Plot Radius: 10 m Plot Area: 1/32 hectare

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Tree Number** | **Azimuth** | **Distance (0.01 m)** | **DBH (0.1 cm)** | **Live Crown Ratio** |
| 1 | 34 | 5.85 | 49.1 | 65 |
| 2 | 48 | 5.25 | 42.2 | 25 |
| 3 | 55 | 5.65 | 61.5 | 50 |
| 4 | 90 | 9.55 | 4.7 | 75 |
| 5 | 162 | 6.30 | 69.2 | 65 |
| 6 | 370 | 5.60 | 51.4 | 75 |

Metrics: (7 pts for tph & BA, 8 pts for Med & Mean)

Trees per hectare: \_\_\_\_\_192\_\_\_\_\_\_\_\_\_

Basal area per hectare (m2): \_\_\_\_38.8\_\_\_\_\_\_\_\_\_\_\_

Median DBH: \_\_\_\_50.3\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Average Live Crown Ratio: \_\_\_\_\_\_\_59\_\_\_\_\_\_\_\_\_\_\_

**Part 2: GPS Navigation** **(30 minutes)**

Protocol: Using the GPS device provided, follow the steps below to navigate around campus. Make sure that Position format is **UTM UPS** and Map Datum is **NAD83**.Also, the distance should be **Metric** and elevation should be **Feet**. (8 points each)

**Tasks**

1. Walk over to the **Arizona State Museum Entrance Door**. Record the following:

Easting: \_\_\_\_\_\_\_\_0504178\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Northing: \_\_\_\_\_\_\_3566190\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Elevation: \_\_\_\_\_\_\_~2400\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Error: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Navigate to this location: **0504246 3566103**

Describe what you have found:

* + Flower garden outside Douglass Building

1. Navigate to this location: **0504366 3566089**

Describe what you have found:

* + Campus directory

1. Navigate to this location: **0504433 3566205**

Describe what you have found:

* + Back door to bookstore

1. What is the azimuth and distance from your last point back to your starting point?
   * 255 deg, 277 m