Lab/Workshop 1; Map Interpretation

Grab a partner and form a team of two.
Names of Team Members: ____________________________________________

Materials Required: Maps, rulers, protractors, tracing paper, masking tape.

Exercises:

- Elevation
- Slope
- Distance, Area, Volume
- Drainage Basin Delineation
- Drainage Nets
- Navigation
  - Location
  - Plotting Bearings

Directions:

1. Check out, borrow, have, buy or otherwise acquire a topographic quadrangle. The UF Map and Imagery Library, Dr. Binford, the Florida Bookstore on University Avenue, Brasington’s Trail Shop on NW 13th St., the Florida Land Boundary Information System http://www.LABINS.ORG/, any of several hundred other retail outlets, or the USGS Store (http://store.usgs.gov/) all have these available. Many of the maps are now available in digital form, but for this exercise please use the original paper map.

2. Name the agency responsible for the map.

3. What is the name of the quadrangle?

4. What quadrangle series and type is it? What is the meaning of these names?
5. Name the eight adjoining quadrangles.

6. When was the map published? When was the mapping work done? When were the revisions, if any, done?

7. What is the map scale (the representative fraction)?

8. What is the map projection and datum?

9. What are the boundaries of the quadrangle in terms of latitude and longitude?

10. What is the area in square kilometers covered by the quadrangle? In square miles?

11. What is the magnetic declination at the time of publication? Now?

12. Describe the adjustment that must be made for accurate bearing determinations.

13. What is the contour interval?
14. What is the vertical datum?

15. Find the following points on the map, and fill in the table.

<table>
<thead>
<tr>
<th></th>
<th>Elevation (m)</th>
<th>Elevation (ft)</th>
<th>UTM N, E</th>
<th>Lat/Long</th>
<th>Bearing from S.W. Corner</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highest Point</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lowest Point</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Largest Building</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Steepest slope along a stream</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Center of map</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

16. What is the bearing from the highest point to the lowest point?

17. How far is the straight-line (planimetric) distance from the highest point to the lowest point?

18. How long are the northern and southern boundaries of the quadrangle (ASSUME NOTHING – MAKE THIS MEASUREMENT WITH 0.2 mm RESOLUTION)? Are they the same? If not, why not?

19. How long are the eastern and western boundaries (ASSUME NOTHING – MAKE THIS MEASUREMENT WITH 0.2 mm RESOLUTION)? Are they the same? If not, why not?

20. Pick a point on a stream. Trace the drainage net of the stream on tracing paper.

21. Finally, to illustrate the information content of your map, pick a point anywhere on the map. Lightly draw a line between the point and the center of the map, and then
draw two lines 30 degrees from the center line to the edge of the map. Describe in words and pictures the view, defined by the two outer lines, from the point.