**ES202 Video Review Exercise – Introduction to Topographic Maps**

**Part 1. Topographic Maps.** Watch the Youtube Video on basics of topographic map reading at the following URL: <https://www.youtube.com/watch?v=zqPMYGDxCr0> (~15 minutes); answer the following questions / define the following terms. Use internet search tools as needed (e.g. Google, Wikipedia, etc.).

1. Contour Line
2. Contour Interval
3. Index Contour Line
4. True or False. Steeply sloping land surfaces are associated with closely spaced contour lines.
5. True or False. Gentle sloping land surfaces are associated with more widely spaced contour lines.
6. What is the “rule of V’s” as applied to contour lines crossing rivers and streams? Draw a sketch to illustrate your answer.
7. True or False: rivers flow from low elevation to high elevation, against the force of gravity.
8. What is the rule of contour lines that represents hills or high areas on the landscape. Draw a sketch to illustrate your answer.
9. Example problem: you are located at a position half way between the 380 ft and 400 ft contour lines, using the principle of interpolation, what is your approximate elevation based on the contour intervals.
10. How are bowl-shaped depressions illustrated on the topographic map. Draw a sketch with contour lines to illustrate your answer.

**Part 2. Topographic Profiles.** Watch the YouTube video on how to draw topographic profiles at the following URL: <https://www.youtube.com/watch?v=StDYPIuk25M> (~6 minutes); answer the following questions / define the following terms. Use internet search tools as needed (e.g. Google, Wikipedia, etc.).

1. What is a topographic profile, draw a sketch to illustrate your answer.
2. True or False: topographic profiles are drawn as if looking at the landscape from the side, whereas topographic maps view the landscape from above the Earth’s surface.
3. In drawing a profile on a Cartesian X-Y graph, what data are plotted on the Y axis? What does the X axis represent?

**Part 3. Drawing Contour Lines.** Watche the YouTube video on how to draw contour lines from elevation data at the Earth’s surface at the following URL: <https://www.youtube.com/watch?v=qtwgHYPtPmI> (~4 minutes); answer the following questions / define the following terms. Use internet search tools as needed (e.g. Google, Wikipedia, etc.).

1. True or False: map view of the Earth’s surface is analogous to looking down from an aircraft.
2. Define the term “contour line”?
3. In terms of geometry, what is the definition of the term “line”?
4. List the steps necessary to draw contour lines from point elevation data on a map.
5. True or False: if one elevation point lies at 88 feet above sea level, and an adjacent point lies at 97 feet above sea level, the 100 ft contour line would pass between them.
6. Make a sketch or provide image capture of the map shown in the video, using the video instructions, draw three contour lines for the 100 ft, 95 ft, and 90 ft elevations.