

## **Study guide for Test2**

(Test2 on **Nov. 6, 2018** 6:00pm~6:40pm. 15~20 questions for 100 points)

(Scope: lectures between 08 Data Generalization and Mapping ~ 16 Effective Graphing)

The following questions are from the lecture notes and the textbook. Please make sure you cover the bullet points and let me know if you have any questions. Good luck!

- What are the types of generalization operations for spatial data? Think about when each type of generalization would be useful.
- How can you evaluate a map design in terms of map elements, layout, and composition?
- What are the concepts of Gestalt Principles, visual hierarchy, figure-ground organization, contrast, visual balance, and internal organization? How can we effectively utilize/interpret them in mapping (refer the figures in the lecture note 10)?
- What are additive colors and subtractive colors? How can you make certain colors in RGB and CMYK color systems?
- What are four classification methods? Think about when each type of the classification methods would be useful
- How can you choose appropriate color schemes based on four quantitative suggestions?
- How can you evaluate good/bad label designs and their placements in maps?
- What are effect of MAUP in choropleth mapping, illusion of regional total and colors, and their good/bad map-design examples?
- How dot-density maps and choropleth maps are different from each other?
- How can you decide data unit, dot size, and dot values in a dot-density map?
- How would you place dots in a dot-density map?
- What are differences between true-point mapping and conceptual-point mapping?
- How each of proportional symbol mapping and dot-density mapping is useful?
- What are good legend designs & symbolization in dot-density & proportional symbol mapping?
- How are types in mathematical scaling and perceptual scaling different from each other?
- What are good designs for graphs and charts in mapping?
- How to choose an appropriate type of chart for certain types of data?
- What is chartjunk in mapping?