**STATISTICS NOTES for Test – 1 (Major topics)**

**CHAPTER –2: DATA**

1. Source of data: Individuals; Any entity that posses statistical information. (Respondents to survey questions, participants in an experiment, any object)
2. Types of data: Categorical, Numerical (quantitative) data.

**CHAPTER –3: Displaying and describing categorical data:**

1. Examples (grades, Educational majors, race)
2. Displays.(table, pictures)
3. Tables: a) Frequency table (class, count).

 b) Relative frequency table (class, percents/proportions).

1. Pictures (bar charts-vertical or horizontal, pie charts)
2. Contingency tables(marginal distribution-talks about the total, conditional distribution- information about one raw)
3. Segmented bar charts, side by side pie charts.

**CHAPTER –4: Displaying quantitative data:**

1. Table, histogram, relative frequency histogram, dot plots, stem-and leaf display, and time plots.(both single and side by side plots)
2. Describing distributions: Shape, center, spread, and any unusual features.
3. Shape: Unimodal, bimodal, multimodal.- symmetric/skewed, or any outliers.

**CHAPTER –5: Describing distributions numerically:**

1. Central values: Mean, median, mode.
2. Other location oriented values: Lower quartile, upper quartiles, minimum, maximum
3. Spreads: Range, IQR, standard deviation.
4. Box plot(use of calculator, single and side by side)
5. Mean  , S.d. s = 

**CHAPTER –6: Standard Deviation as a ruler and the Normal Modal.**

1. Normal Modal – Properties a) area under a normal curve = 1, b) 68-95-99.7 rule
2. Standard Normal Modal, z- score  .
3. Calculator usage: Normal cdf, invnorm.

\*\*\* Should be able to display and describe data, discuss appropriateness and limitations, and apply concepts.