Dale Story
POLS 3310

Formulas for Test Two

n = sample size
$\bar{x}$ = sample mean
s = standard deviation

In all of our examples that involve either the variance or the standard deviation, the distinction between sample and population is not relevant (in terms of *n-1* or *n*). Always use whatever formula is provided to you on this sheet.

$$\bar{x} = \Sigma \frac{x_i}{n}$$

$$S.E.(\bar{x}) = \sqrt{\frac{\Sigma(x_i - \bar{x})^2}{n(n-1)}}$$

$$C.I. = \pm 1.96[S.E.(\bar{x})]$$

Z-score: $$Z = \frac{x_i - \bar{x}}{s}$$

Normal Distribution (% of cases):
0 to 0.5 = 19.5%; 0 to 1 = 34.13%; 0 to 1.5 = 43.32%; 0 to 2 = 47.73%; 0 to 2.5 = 49.38%