

# STAT 512 Test 2 Formula Sheet

$$\bar{y} \pm z_{\alpha/2} \left( \frac{s}{\sqrt{n}} \right)$$

$$\hat{p} \pm z_{\alpha/2} \sqrt{\frac{\hat{p}(1-\hat{p})}{n}}$$

$$(\bar{y}_1 - \bar{y}_2) \pm z_{\alpha/2} \sqrt{\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}}$$

$$(\hat{p}_1 - \hat{p}_2) \pm z_{\alpha/2} \sqrt{\frac{\hat{p}_1(1-\hat{p}_1)}{n_1} + \frac{\hat{p}_2(1-\hat{p}_2)}{n_2}}$$

$$\left( \frac{z_{\alpha/2}}{B} \right)^2 \sigma^2$$

$$\left( \frac{z_{\alpha/2}}{B} \right)^2 p(1-p)$$