

STAT 109 Exam 2 Formula Sheet

$$P(A|B) = \frac{P(A \cap B)}{P(B)}$$

$$N\left(\mu, \frac{\sigma}{\sqrt{n}}\right)$$

$$N\left(p, \sqrt{\frac{pq}{n}}\right)$$

$$E = z_c \cdot \text{SE}$$

$$\text{SE}(\hat{p}) = \sqrt{\frac{pq}{n}}$$

$$\text{SE}(\bar{x}) = \frac{\sigma}{\sqrt{n}}$$

$$E(X) = \sum (x \cdot P(x))$$

$$\text{Var}(X) = \sum [(x - E(X))^2 \cdot P(x)]$$