STAT 705 Test 2 Formulas

$$d_1 = b_1 - b_1^*(\alpha/2)$$
$$d_2 = b_1^*(1-\alpha/2) - b_1$$
$$\Rightarrow \quad L_r = b_1 - d_2, \quad U_r = b_1 + d_1$$

$$e^{\left[\frac{y\theta - b(\theta)}{a(\phi)} + c(y,\phi)\right]}$$

$$b'(\theta)$$
$$b''(\theta)\, a(\phi)$$

$$G^2 = -2\left[\ln L_R - \ln L_F\right]$$

$$\frac{y_i - \hat{\pi}_i}{\sqrt{\hat{\pi}_i(1-\hat{\pi}_i)}}$$

$$2\sum_{i=1}^{n}\left[y_i \ln\left(\frac{y_i}{\hat{\mu}_i}\right) - (y_i - \hat{\mu}_i)\right]$$

$$\sum_{i=1}^{n}\frac{(y_i-\hat{\mu}_i)^2}{\hat{\mu}_i}$$

$$w_i = \frac{1}{\lambda} K\left(\frac{x^* - x_i}{\lambda}\right)$$

$$\sum_{i=1}^{n}\frac{w_i}{\sum_{j=1}^{n} w_j} y_i$$

$$\frac{1}{n}\sum_{i=1}^{n}\left[y_i - \hat{m}_{(i)}(x_i;\lambda)\right]^2$$

$$\sum_{i=1}^{n}\left[y_i - \hat{m}(x_i)\right]^2 + \lambda\int\left[\hat{m}''(x)\right]^2 dx$$

$$\sum_{k=1}^{r} SSE(R_{rk}) + \lambda r$$