

# MAE 670

## Applied Nonlinear Control

### Homework 2

1. Solve Problem # 3.1 on page 97.
2. Solve Problem # 3.2 (a), (b), (d), and (e) on page 97.
3. Solve Problem # 3.4 on page 97. *The second equation in the problem statement should read:*

$$\dot{x}_2 = -\frac{2(x_1 + x_2)}{z^2}$$

*and the 4th equation should read:*

$$\frac{dx_2^h}{dx_1} = \frac{-1}{1 - 2^{1/2}x_1 + x_1^2/2}$$