**Muddy Topics from 421**

*Unit III*

Ratio Control…………………………………………. [3-4]

Feedforward Dynamic……………………………. [8-9,13-14]

Feedforward Steady State……………………… [5-7,12]

Numerator terms……………………………………. [10-14]

Model feedforward………………………………… [15], PSET 11

Cascade Control……………………………………… [17-24], PSET 12

Stability in Cascade………………………………… [23], Exam 2 – remember necessary AND sufficient

Dealing with large deadtime………………….. [25], PSET 12

*Unit II*

Anti-reset windup………………………………….. [5-6], Project

Span/zero/gain/linear range………………….. [12], Extra discussion today

Block diagrams………………………………………. [13-23,62], Exam II Review Handout

Servo Problems……………………………………… [18]

*Unit I*

Setting up ODE………………………………………. [1-10] (356, 357, 382 topics)

LaPlace Transforms……………………………….. [11-13] (Table 3.1)

Solving ODE with LaPlace Transforms……. [13]

Heaviside Expansion………………………………. [14-15]

Linearization………………………………………….. [63-65]

Fitting Experimental data………………………. [55-60] (Book chapter 7)

Other tables to have – hand outs in class (posted on website)