Homework 7
2.18/2.180
Due Wednesday April 22 at beginning of class

Problems 1 and 2 have two different variants for G and UG students.

Problem 1: (3 points) Exercise 6.3: UG students answer the question through simulation of the 2D system only. Graduate students should perform singular perturbation and draw conclusions from the reduced order model of the X dynamics (when C is at the quasi-steady state).

Problem 2: (3 points) Exercise 6.4

Problem 3: (3 points) Exercise 6.5: UG students answer the questions through simulation. Graduate students should apply singular perturbation and find the behavior of the system on the slow time scale when the complex C is set to its quasi steady state. Draw your conclusions based on the expression you obtain.

2.18 / 2.180 Biomolecular Feedback Systems

Spring 2015