

## Math 6770, Fall 2010

### Mathematical Biology I: Mathematical modeling of cancer and other chronic conditions versus the immune system

Time: Tuesday and Thursday, 12:25-1:45 p.m.  
Place: LCB 222  
Instructor: Peter Kim  
Office: LCB 313  
Email: kim@math.utah.edu  
My web page: <http://www.math.utah.edu/~kim>  
Course page: <http://www.math.utah.edu/~kim/Teaching/6770Fall2010/6770-fall-2010.html>  
Office Hours: TBA

**The Course.** Math 6770 is designed to introduce the questions and methods of modern mathematical modeling of cancer, other chronic diseases, and immune dynamics. This course is intended for students with an interest in the mathematical modeling of cancer, other diseases, and the immune system. No prior background in immunology is required. We will partly follow a textbook outlining basic concepts of immunology, but will rely primarily on papers from the current literature to guide lectures and discussion.

**Homework.** There will be written homework once every two to three weeks, with some of the problems being more open-ended explorations of extensions of the ideas discussed in class. Students may work in teams or independently, and participate in presenting a couple of these extensions during the semester.

**Tests.** Unless there is major demand, there won't be any tests.

**Projects.** By the beginning of October, I would like to meet with each student to discuss a project. There will be project idea presentations (about 5 minutes long) toward the end of October, a progress report at the end of November, and a poster session on the last day of class (December 10). Project write-ups will be due on the last day of exam week (December 17), but you may turn them in earlier.

**Grading.** The grade will be approximately 40% from homework, 40% from the project, and 20% from classroom participation and leadership. Shy students can make this up by completing open-ended questions mentioned in class.