

APh161: Physical Biology of the Cell
Final Homework 8
Due Date: 9AM, Friday, March 11, 2005

“To strive, to seek, to find, and not to yield.” - Alfred Tennyson

NOTE: This problem must be submitted by email to Rob - no hard copies accepted.

1. The Five Most Important Things You Learned.

Give a list of the five most important things that you learned in this class. In particular, make sure that each entry is described in detail with a discussion of why the topic meant something to you and how it fits into your picture of biology.

2. Physical Biology of the Cell: Your Turn.

Imagine yourself teaching a course entitled "Physical Biology of the Cell" which is aimed at arguing for a study of the living world using any and all tools available (i.e. conventional tools of molecular biology, biochemistry, mathematics, statistical mechanics, elasticity theory, statistics, etc.). In particular, I am asking you to reject the way that departments in universities are organized and just think about the questions of interest - how cells and the machines within them work. Your job in this problem is to write a course outline for such a course - organize it lecture by lecture and imagine that you have 20 lectures. Give a one sentence justification for the choice of topic in each lecture. Try to think out of the box - don't necessarily organize things the way that I did - put forth a real attempt at originality.