Syllabus for BI322

Course Prerequisites

Bi214 or Bi252 or equivalent are required. If you are uncertain about whether you have met the prerequisites, please email me. If you lack the prerequisites, I encourage you to read Chapters 3, 4, and 13 of Essential Cell Biology (4th edition) on reserve in the science library before class.

Course topics and goals

This course covers eukaryotic cell biology. You will learn the components of a eukaryotic cell and how they are inter-related; methods cell biologists use to study cells (including light microscopy, laser scanning confocal microscopy, electron microscopy, biochemistry, DNA microarrays, transgenics, and other cutting edge techniques); and a glimpse of the role of cells in development and cancer. We will not cover plant cells or prokaryotic cells.

The goals of this course are to give you (1) a basic knowledge about the fundamental concepts of cell biology; (2) a working cell biology vocabulary; (3) an understanding of the methods used by cell biologists; and (4) practice thinking analytically and synthesizing information, so that you will be better equipped to read and critically analyze primary scientific literature or media reports on cell biology topics (e.g. stem cell research).

Course textbook

Essential Cell Biology 4th edition 9780815344551 0815344554

Required readings are mostly from the new 4th edition of Essential Cell Biology (ECB). Multiple copies will be on reserve in the science library. Additional required reading beyond ECB3 will also be posted on the class website for free downloads.

Required reading is to help you understand the lectures, and help you do well on the quizzes. Quizzes will be limited to material covered in the reading; exams will be limited to the material covered in lecture.

Lectures. I will post a PDF of the lecture slides prior to class so you can use the prints as note templates.

Discussion sections. Most sections will go over a short quiz on the readings or will be a review session for the midterms.

Quizzes. These will be given online prior to discussion sections and will be based on the material in required reading. The quizzes are designed to make sure you do the reading, and are not meant to be
representative of the exams. You should not assume that if you get 100% on each quiz that you will get 100% on the exam, as the quizzes are much simpler - on the other hand, if you flunk the quizzes you need to immediately seek assistance before the midterms.

Exams. There will be two midterm exams and one final exam. The exams will cover material from both lectures and readings, but with an emphasis on the lectures. EVERYONE IS REQUIRED TO TAKE THE FINAL EXAM. BE CAREFUL WHEN MAKING TRAVEL PLANS AS THERE WILL BE NO EARLY OR MAKE-UP FINAL EXAMS.

**Grading**

Your grade will be based on the point distribution below. I do not grade on a fixed curve.

Quizzes: 10%

Participation: 5% (Discussion section)

Midterm 1: 25%

Midterm 2: 25%

Final exam: 35%

**Office Hours**

Philip Washbourne Tuesdays 12-1 Huestis 334D

Nick Sattler TBA

**Professional Conduct**

You are expected to follow the student conduct code; academic dishonesty includes cheating, plagiarizing or knowingly supplying false information. If you are aware of academic dishonesty occurring, please see me.