



BIOLOGICAL SCIENCES 403

Current Topics in Cell Biology

SUMMER 2014 (1144)

INSTRUCTOR	OFFICE	PHONE	EMAIL
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COURSE PREREQUISITES

MBB 222 & 231 with a grade of C- or better, and completion of 75 units, or completion of BISC 305 or 366 with a C- or better. Students with credit for BISC 372 under this topic may not take this course for further credit. It is **STRONGLY** recommended that you have a good basic understanding of cell biology if you expect to succeed in the course. As cancer is a genetic disease you must have a good grasp of genetics as well. There is no time to reteach review material from prerequisite courses¹.

COURSE DESCRIPTION

This offering of Bisc 403 will be divided into 3 sections. In the first, we will examine the cell cycle, including checkpoints and regulation, centrosome function, the centromere and kinetochore, and cytokinesis, and research methods used to understand the cell cycle. In the second, we will discuss the cell cycle gone wrong, how cancer begins and progresses. Causative factors, such as viruses, mutations, and carcinogens, will be discussed. The final section will look at treatments, both traditional and newer, more specific and targeted treatments. I will try to promote a focus on how we know what we know, what we don't know, and critical thinking and evaluation of evidence.

TUTORIALS

Tutorials will provide an opportunity to clarify difficult concepts and answer questions. We may read through and discuss some research papers, with an emphasis on developing critical thinking skills.

TEXTBOOKS

Required texts:

Principles of Cancer Biology, first edition, Kleinsmith bundled with Biology of Cancer, Palladino and Lobo
ICLICKERS will be used in class

MARK DISTRIBUTION

3 Non-cumulative exams - 25% each

Clicker questions, in class - 10%

Project (most likely a paper) - 15%

NOTE: I will be conducting research on a learning tool during this semester. You may opt out of the research if you choose. I will give you more information at the beginning of the semester.

¹ Prerequisite Minimum Grade Requirement: Unless stated, a grade of C- or better is required on all Prerequisite BISC & MBB courses.