Please note: Each college and department may have their own requirements, in addition to those stated in the Syllabus Guidelines.

PCB 6526 Cancer Biology IV - Concepts and Techniques in Cancer Genetics

Course Prerequisites: N/A

23740 001, Credit Hours 3

College of Arts and Sciences, CMMB

COURSE SYLLABUS

Instructor Name:	Alvaro Monteiro	Semester/Term & Year:	Spring 2019
		Class Meeting Days:	M, W
		Class Meeting Time:	2:00 – 4:00 pm
		Class Meeting Location:	MRC 3064
		Lab Meeting Location:	Building and Room
		Delivery Method:	Online, Off-Campus

I. Welcome!

Welcome to the Cancer Genetics Course (PCB6526)

The course uses a wikispace to integrate course materials and discussions (once registered you will have access to the wikispace)

II. University Course Description

Paste the approved description from USF's course inventory (http://ugs.usf.edu/course-inventory/).

III. Course Purpose

This course will explore major concepts in Cancer Genetics and genomics, how they derived from experimental results and how they can be applied to outstanding problems in Cancer Biology. It will cover aspects of molecular as well as population genetics as they relate to cancer and how different approaches were instrumental to challenge existing paradigms. It will have four interconnected aspects: 1) a historical perspective on the development of the major concepts of Oncogenes and Tumor Suppressor genes and how other concepts were developed or derived from classical genetics and applied to them. 2) Case analysis in classic tumor types, in which specific tumor types will be explored as an illustrative example. 3) Contemporary topics in Cancer Genetics and novel genetic approaches to the cancer problem. 4) A focus on technological developments and Systems Biology. Importantly, although there may be apparent overlap between this course and Cancer Biology I, as they pertain to specific cancers we will not address molecular biology or signal transduction aspects and rather focus on the molecular and population genetics.

IV. Course Objectives

The objective of the course is to familiarize students with current concepts in cancer genetics and genomics

V. Student Learning Outcomes

After the course the student should be able to navigate the cancer genetics literature, understand basic concepts and be familiar with state-of-the art techniques in genetics and genomics.