

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



PCB 6230 Cancer Biology I – Basics of Molecular Oncology

Course Prerequisites: N/A

85535 001, Credit Hours 3

College of Arts and Sciences, CMMB

COURSE SYLLABUS

Instructor Name: Conor Lynch

Semester/Term & Year:	Fall 2018
Class Meeting Days:	Tuesday - Thursday
Class Meeting Time:	9:00 am-10:30 am
Class Meeting Location:	MRC 3065
Lab Meeting Location:	N/A
Delivery Method:	

I. Welcome!

II. University Course Description

This course serves as an introduction to the basics of molecular oncology. Topics will include cytoplasmic and nuclear oncogenes, cell cycle control, apoptosis, tumor suppressor genes and cancer drug discovery.

III. Course Purpose

The primary objective of this course is to provide an understanding of normal and abnormal cell biological processes, molecular signaling pathways, growth control mechanisms, and apoptotic processes as they relate to molecular oncology and cancer biology.

IV. Course Objectives

Students are expected to have already had basic courses on cell biology, molecular biology, and biochemistry. Multiple faculty members teach this course jointly. Topics to be covered include basics of cell transformation, oncogenes, tumor suppressor genes, tumor viruses, signal transduction pathways, extracellular environment and cell invasion, cell cycle control and checkpoints, and apoptosis. Individual lecturers will provide recent primary research articles, and students will be expected to participate in the analysis of these papers as part of their grade. Students are expected to supplement the lecture information and primary research paper reading, and gain more in-depth understanding of each topic, by studying appropriate chapters in the primary assigned book.

V. Student Learning Outcomes

At the conclusion of the course, student should be able to demonstrate a basic understanding of cancer biology related to etiology, cell signaling, nuclear transcription, metabolism, tumor microenvironment, invasion and metastasis.