

## 細胞生物學 2017

Department of Medical Laboratory Science and Biotechnology, NCKU

上課老師: 楊孔嘉, Tel: 5787

傅子芳, Tel: 5795

上課時間: 星期一 13:10-15:00

上課地點: 大三教室 (醫技系 3F, Room 5776)

日期 (月/日/)	上課內容	教科書	上課 老師
2/20	DNA replication, repair, and Recombination	Chap. 6	傅子芳
3/06	From DNA to Protein	Chap. 7	傅子芳
3/13	Control of gene expression	Chap. 8	傅子芳
3/20	Membrane structure and transport_1	Chap. 11-12	楊孔嘉
3/27	Membrane structure and transport_2	Chap. 11-12	楊孔嘉
4/10	Membrane structure and transport_3	Chap. 11-12	楊孔嘉
4/17	Energy generation and mitochondria	Chap. 14	楊孔嘉
4/24	期中考		楊孔嘉
5/01	Intracellular compartments and transport	Chap. 15	傅子芳
5/08	Cell signaling	Chap. 16	楊孔嘉
5/15	Cytoskeleton	Chap. 17	楊孔嘉
5/22	Cell cycle	Chap. 18+20	傅子芳
5/29	Cellular communication (端午節補課)	Chap. 18+20	傅子芳
6/05	Student presentation		楊+傅
6/12	Student presentation		楊+傅
6/19	期末考		傅子芳

教科書: Alberts et al. 2014. Essential Cell Biology. 4th edition, Garland Science Publishing, Inc. New York & London

學期成績計算方式: Presentation (20%) 期中考 (40%), 期末考 (40%)

### **Introduction of the Course of Cell Biology**

This course provides a fundamental knowledge of the workings in a living cell.

The learning objectives include (1) understanding the basic molecules of a cell – the protein, DNA, RNA molecules (2) understanding the functional structures of a cell – the membrane, nucleus, mitochondria and cytoskeleton (3) how the cooperative systems in a cell to generate energy, communicate, grow, divide, move and respond to stimuli (4) the experimental designs and skills in the research of cell biology (5) problem-based discussion and presentation.

課程簡介：本課程介紹活細胞生存的基本法則，學習目標包括 (1) 了解細胞中的組成單元 – 蛋白, DNA, RNA (2) 了解細胞中的功能性結構 – 膜, 細胞核, 粒線體, 細胞骨架 (3) 細胞中的合作系統運作模式以產生能量, 訊息傳遞, 提供細胞生長與分裂並對刺激產生反應 (4) 細胞生物學的研究原理與實驗設計 (5) 問題導向之討論與報告.