

108-1 Advanced Cell Biology 高等細胞生物學

Class Time: 1:10 ~ 4:00 PM, Wednesday
 Classroom: Rm 602 at NCKU Medical College
 Coordinator: 吳梨華老師 (Ext. 3618)

Course Goals: Familiarize students with the fundamentals of cell biology and with the application of this knowledge in addressing both basic and clinical research questions. By the end of the course, students would know the basics of fundamental cell biology and how to apply what they learn in addressing cell biology-related questions arising in the research field of their interest, including cancer biology, immunology, neurobiology, microbial pathology, and developmental biology.

Course Format: The course will be divided into two parts: 1st on the fundamentals of cell biology and contemporary cell biology technology, and 2nd on the applied knowledge in cell differentiation, organogenesis, embryonic development, immunity, pathogen and host interaction, neuro sciences and cancer. Each lecture will be presented by the instructors with their expertise in the field. Problem-based assignment(s) will be given before the lecture via Moodle.

Course Materials: Molecular Biology of the Cell by Alberts B et al (recent editions) and the relevant published materials given by each lecturer

Grading Criteria: Student participation and punctuality (20%), PBL assignment and panel discussion (20%), one mid-term (30%) and one final exam (30%)

方法	百分比(%)	閱讀、理解與運用專業知識	彙整新知與良好的溝通能力	解決研究問題的能力
準時出席與參與課程 Q/A 討論	20	V	V	V
PBL assignment and panel discussion	20	V	V	V
期中考 Midterm Exam	30	V	V	V
期末考 Term exam	30	V	V	V

課程進度 Course Progress Outline

日期	週次 Week	進度說明 Progress Description	Lecturer
9/11	1	Introduction: How to study cells	吳梨華
9/18	2	Plasma membrane	蔣輯武
9/25	3	Cytoskeleton and cell movement	蔣輯武
10/2	4	Endomembrane systems and organelles	蔣輯武
10/9	5	Cell cycle and its control system	陳韻雯
10/16	6	Cell death	吳梨華
10/23	7	Cell adhesion and extracellular matrix	邱文泰
10/30	8	Mid-term exam	吳梨華
11/6	9	Cell-cell communication	邱文泰
11/13	10	Development and organogenesis	陳昌熙
11/20	11	Immunity	王憲威
11/27	12	Nerve system	張雅雯
12/4	13	Pathogen and host interaction	鄧景浩
12/11	14	Cancer	吳梨華
12/18	15	Panel discussion	吳梨華
12/25	16	Final exam	吳梨華