朝陽科技大學 097學年度第1學期教學大綱
Cell Biology 細胞生物學

當期課號	1825	Course Number	1825
授課教師	李孟真	Instructor	LEE,MENG JEN
中文課名	細胞生物學	Course Name	Cell Biology
開課單位	應用化學系(四日)四A	Department	
修習別	選修	Required/Elective	Elective
學分數	3	Credits	3
課程目標	細胞生物學是研究細胞基本生命活動規律的科學，它在不同層次(顯微與分子水準)上以研究細胞結構與功能，細胞增殖、分化、衰老與凋亡，細胞信號傳遞，真核細胞基因表達與調控，細胞起源與進化等爲主要內容。通過本課程的學習，讓學生能夠掌握細胞增生、分化及其調控之基本原理、內容體系、相關的研究方法以及細胞生物學在生命科學中的地位和應用，同時瞭解相關的參考文獻和網站，既具有扎實的細胞生物學基礎知識，又具有自己獲取知識的能力，重在素質培養。	Objectives	The goal of this course is to teach both the fundamentals of nuclear cell biology as well as the methodological and experimental approaches upon which they are based. Class meetings at the start of the week will generally be lectures describing the background and fundamental findings in a particular area of nuclear cell biology. The second session class meetings of the week will generally be a group discussion of one assigned paper in the same area. These seminal papers are used to understand both the important elements of the field as well as to provide concrete examples of the experimental approaches and logic used to establish these findings. Two students will be assigned to present the paper for each discussion based class and faculty and students will participate in the discussion. All students will be expected to have read the paper under consideration and be prepared for a lively discussion.
教材	教師自編教材	Teaching Materials	teacher's own mateiral
成績評量方式	考試成績80% 平常分數 20%	Grading	written test: 80% presence and home works; 20%
教師網頁			
教學內容	概論 胞器 胞間基質 電訊號傳遞 細胞訊息傳遞 I 細胞訊息傳遞 II 生長因子 細胞週期 癌症 基因表現之調控 基因表現之調控 蛋白質表現 細胞分子運送 細胞骨架 幹細胞 基礎細胞培養技術 : 顯微鏡技術 基礎細胞培養技術 : 單株抗體 無菌技術	Syllabus	Introduction Cells and Organelles Extracellular Structures Electrical Signaling Signal Transduction: Part I Signal Transduction: Part II growth factor Chromosomes and cell cycle mid term Cancer Regulation of Gene Expression I Regulation of Gene Expression II Translation and Protein Sorting Intracellular Compartments and Trafficking Cytoskeleton and cell mobility stem cell pracitcal cell biology techniques: Microscopy pracitcal cell biology techniques, monoclone antibodies, sterile techniques final exam

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