朝陽科技大學 092學年度第2學期教學大綱
lifescience 生命科學概論

當期課號	0609	Course Number	0609
授課教師	蔡新聲	Instructor	TSAY,HSIN SHENG
中文課名	生命科學概論	Course Name	lifescience
開課單位	自然與應用科技類(日)	Department	
修習別	選擇必修	Required/Elective	Topics in Natural and Applied Sciences
學分數	2	Credits	2
課程目標	由於對生命的日愈重視，因此生命科學的探討聚集了更多人的注意。本門課主要是經由生命起源及滅絕的過程來探討，進而了解生命的來源，尊重生命，並進一步了解目前國內對生物科技發展的情形和其在未來生活上的應用。	Objectives	In Life Science, students are introduced to the scientific study of living things. They should develop their understanding of the way a single species functions in its environment as well as how communities of species live in their environment and interact with one another. Students should be able to recognize genes, to understand biotechnology, to develop their conscience and to have respect to all things in the world.
教材	投影機教學	Teaching Materials	
成績評量方式	測驗	Grading	test
教師網頁			
教學內容	1.生物的化學基礎 2.細胞：生命的積木 (1)細胞的構造 (2)細胞的呼吸作用 (3)光合作用 3.生命的藍圖 (1)遺傳學和遺傳 (2)基因的分子生物學 (3)DNA技術與人類基因體 (4)HIV與AIDS(人體的三道防線) (5)組織培養技術 4.生物多樣性的理論基礎－演化學 (1)微生物的演化 (2)動物的演化 (3)植物和真菌的演化 5.生物與環境－生態學 (1)生命之網：生產者與掠食者 (2)世界的生態群落：從沙漠到雨林 6.人體：完美的機器	Syllabus	1. Essential Chemistry for Biology 2. Cell: The Molecules of Life (1) A Tour of the Cell (2) Cellular Respiration (3) Photosynthesis: Converting Light Energy to Chemical Energy 3. Patterns of Inheritance (1) The Cellular Basis of Reproduction and Inheritance (2) Molecular Biology of the Gene (3) DNA Technology and the Human Genome (4) HIV, AIDS and SARS (5) Plant Propagation Through Tissue Culture 4. Evolution (1) The Evolution of Microbial Life (2) The Evolution of Animals (3) Plants, Fungi, and the Move onto Land 5. Ecology (1) The web of life: Producer to Predator (2) The World's Biomes: Desert to rainforest 6. The Human Body: The Ultimate Machine

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