



課 綱 Course Outline
生化暨分子醫學科學系學士班

中文課程名稱 Course Name in Chinese	植物生長與發育				
英文課程名稱 Course Name in English	Plant Growth and Development				
科目代碼 Course Code	BMM_32400	班 別 Degree	學士班 Bachelor's		
修別 Type	學程 Program	學分數 Credit(s)	3.0	時 數 Hour(s)	3.0
先修課程 Prerequisite					
課程目標 Course Objectives					
從植物生理學、生物化學與分子生物學的角度，介紹高等植物生長與發育的生理現象，著重於各個植物荷爾蒙在植物生長與發育中的角色，並探討各類植物荷爾蒙相互間的交互作用及對植物生理的影響。					
系教育目標 Dept.'s Education Objectives					
1	培養生化及生物醫學相關領域之人才。 Cultivating talents engaged in biochemistry and molecular medicine.				
2	培育學生具有自我學習、獨立思考與創新之能力。 Fostering students to acquire the capabilities of self-learning, independent thinking, and innovation.				
系專業能力 Basic Learning Outcomes				課程目標與系專業能力相關性 Correlation between Course Objectives and Dept.'s Education Objectives	
A	具備生命科學相關學科之基礎知識。 Having the basic knowledge of life science.				
B	具備邏輯分析與解決問題的能力。 Having the capabilities of logical analysis and problem solving.				
C	具備資料整合、數據分析與書面及口頭報告之能力。 Having the capabilities of data integration and analysis, and the skills of written and poster presentation.				
D	具備終生學習的能力。 Having the capability of lifelong learning.				
圖示說明 Illustration : ● 高度相關 Highly correlated ○ 中度相關 Moderately correlated					

課程大綱
Course Outline

1. The Plant Hormones: Their nature, occurrence and functions
2. Auxin Action in Cell Elongation and Apical Dominance II.
3. The Induction of Vascular Tissues by Auxin and Cytokinin
4. Gibberellin and Abscisic Acid Action in Cereal Grains Germination
5. Ethylene in Plant Growth, Development, and Senescence
6. Hormone Mutants and Plant Development.
7. Hormones and Reproductive Development
8. Hormones and Seed Development
9. Hormones in Tissue Culture and Micropropagation

資源需求評估（師資專長之聘任、儀器設備的配合．．．等）
Resources Required (e.g. qualifications and expertise, instrument and equipment, etc.)

購置植物生理學相關圖書及訂閱期刊，提供單槍投影機、麥克風、筆記型電腦等教學用具。

課程要求和教學方式之建議
Course Requirements and Suggested Teaching Methods

本課程擬在教與學互動之情境中，以循序漸進，啟發與誘導並進，各系統以單元式教法為主軸，整體之衡定則以統整式教法為輔助。

其他
Miscellaneous

Plant Physiology, 5th ed. (2010) by Taiz and Zeiger (eds.), Sinauer Associates, Inc., Publishers