

97-2 Preliminary Syllabus, Da-Yeh Univ

Information			
Title	系統生物學	Serial No. / ID	1930 / EGR5318
Dept.	電機工程學系碩士班	School System / Class	研究所碩士班1年1班
Lecturer	吳幸珍	Full or Part-time	專任
Required / Credit	Optinal / 3	Graduate Class	NO
Time / Place	(三)234 / H727	Language	English

Introduction
<p>A true understanding of genetic and metabolic function and design will crucially depend on mathematical and computational methods for analyzing biochemical systems. It will require new ways of thinking and novel approaches of integrative analysis. This course contains biochemists and molecular biologists in a hand-on fashion the use of modern computational methods for the analysis of complex biomedical systems.</p>

Outline
<p>課程綱要：</p> <ol style="list-style-type: none"> 1. Introduction to DNA 2. Genome and Bioinformatics 3. Proteome and Transcriptome <ul style="list-style-type: none"> - - gene expression (transcription, translation) - - PLAS software - - Protein software(Swiss-pdb,rasmol,chime) 4. Analysis of DNA Microarray Data (nctu_huang) 5. DNA chip(nctu_huang) 6. Gene Software <ul style="list-style-type: none"> - - gene sequence alignment - - phylogenetic tree - - cluster 7. Modeling(wang) <ul style="list-style-type: none"> - - graphical representation - - models 8. Parameter Identification(wang) <ul style="list-style-type: none"> - - case studies (IGA approach)_Harvest 9. Sensitivity Analysis (wang) <ul style="list-style-type: none"> - - robustness and fragility 10. D.E. in Bioblogy 11. Final Exam.

Prerequisite

no