

101-1 Preliminary Syllabus, Da-Yeh Univ

Information			
Title	高等生化工程	Serial No. / ID	1333 / BTR5019
Dept.	生物產業科技學系碩士班	School System / Class	研究所碩士班1年1班
Lecturer	吳建一	Full or Part-time	專任
Required / Credit	Optinal / 3	Graduate Class	No
Time / Place	(三)ABC / H544	Language	Chinese

Introduction
The purposes of this course include (1) understanding the reaction kinetics of biochemical substances (enzymes, etc.), (2) establishing microbial growth models, dynamic models of fermentation tanks, and (3) exploring fermentation tank design, amplification and monitoring.

Outline
<ol style="list-style-type: none">1. Introduction (1, 2, 4, 5)2. Enzymes (3)3. How cells work (6)4. Stoichiometry of Microbial Growth and Product (7), How Cellular Information is Altered (8)5. Operating Considerations for bioreactors for suspension and immobilized cultures (9)6. Utilizing Genetically Engineering Organisms (14)7. Selection, Scale-up, Operation, and Control of Bioreactor (10)8. Recovery and Purification of Products (11)

Prerequisite
None