

97-2 Preliminary Syllabus, Da-Yeh Univ

Information			
Title	生物產業程序	Serial No. / ID	0471 / BTI4015
Dept.	生物產業科技學系	School System / Class	大學日間部4年1班
Lecturer	陳明造	Full or Part-time	兼任
Required / Credit	Optinal / 3	Graduate Class	Yes
Time / Place	(一)2 / H564 (三)12 / H564	Language	Chinese

Introduction
<ol style="list-style-type: none"> 1. To teach students to recognize bioindustry category. 2. To teach students to know advantages and disadvantages of microorganisms. 3. To teach students to know the methods of collection, isolation and identification of organisms. 4. To teach students to know how to utilize microorganism to develop bioproducts. 5. To teach students to know the processes of fermentation. 6. To teach students to know long-term preservation of cultures.

Outline
<ol style="list-style-type: none"> 1. Collection, isolation and identification of cultures. 2. Types of media and microorganism culture. 3. Screening for new products from microorganisms. 4. Inoculum development. 5. Nutritional improvement of processes. 6. Long-term preservation of industrially important microorganisms. 7. shake-flask fermentation. 8. Solid-state fermentation. 9. Working with anaerobic bacteria. 10. Methods for transformation of organic compounds. 11. Substrates for large-scale fermentation. 12. Cell and tissue culture of plants and animals. 13. Types of starter cultures. 14. Concentrated starter cultures.

Prerequisite
Major in food science and related departments.