

100-1 Preliminary Syllabus, Da-Yeh Univ

Information			
Title	環境工程物化原理(一)	Serial No. / ID	1916 / UDR5011
Dept.	環境工程學系博士班	School System / Class	研究所博士班1年1班
Lecturer	張玉明	Full or Part-time	專任
Required / Credit	Optinal / 3	Graduate Class	No
Time / Place	(三)34 / H568 (四)3 / H568	Language	English

Introduction
This course is intended to introduce the principles and theories of physical chemistry. This course also serves as an elementary course in the areas of environmental treatment technology, industrial pollution control, and industrial safety and hygiene. Lecture materials, outlined below, will center on the theories and applications of reaction kinetics, mass transfer, unit operation, and water treatment processes.

Outline
Chapter 0 Introduction
Chapter 1 Reaction Kinetics
Chapter 2 Reactor Design
Chapter 3 Heterogeneous Reacting systems
Chapter 4 Mass Transfer
Chapter 5 Preliminary Unit Operations and Processes
Chapter 6 Coagulation and Flocculation
Chapter 7 Sedimentation and Flotation
Chapter 8 Filtration
Chapter 9 Disinfection
Chapter 10 Adsorption and Ion Exchange
Chapter 11 Membrane Process
Chapter 12 Chemical Oxidation

Prerequisite
chemistry, physcis, calculus