## 100-1 Preliminary Syllabus, Da-Yeh Univ

Information			
Title	環境工程物化原理(一)	Serial No. / ID	1140 / VGR5002
Dept.	環境工程學系碩士班	School System / Class	研究所碩士班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