

102-1 Preliminary Syllabus, Da-Yeh Univ

Information			
Title	給水工程設計	Serial No. / ID	1393 / VGR5006
Dept.	環境工程學系碩士班	School System / Class	研究所碩士班1年1班
Lecturer	魏漣邦	Full or Part-time	專任
Required / Credit	Optinal / 3	Graduate Class	No
Time / Place	(二)ABC / H541	Language	Chinese

Introduction

The role of design played in the water supply engineering and the integrated design methodology are elaborated. The example of functional design and hydraulic analysis for the key units of water treatment are shown to the student. The operation of real treatment plant will be demonstrated during the field trip.

- Outline**
1. Feasibility Study
 - (1) Feasibility study
 - (2) Bench scale and pilot studies
 2. Engineering Planning/Basic Design
 - (1) Water source quality, and drinking water quality
 - (2) Treatment process selection and design criteria
 - (3) Plant layout and basic design
 3. Coagulation
 - (1) Purpose, consideration, type, and design criteria
 - (2) Example design calculations
 4. Flocculation
 - (1) Purpose, consideration, type, and design criteria
 - (2) Example design calculations
 5. Sedimentation
 - (1) Purpose, consideration, type, and design criteria
 - (2) Example design calculations
 6. Filtration
 - (1) Purpose, consideration, type, and design criteria
 - (2) Example design calculations

Prerequisite

water treatment engineering or environmental engineering, fluid mechanics or hydraulics