

# 101-1 Preliminary Syllabus, Da-Yeh Univ

Information			
Title	給水工程設計	Serial No. / ID	0833 / EVI4037
Dept.	環境工程學系	School System / Class	大學日間部4年1班
Lecturer	魏漣邦	Full or Part-time	專任
Required / Credit	Optinal / 3	Graduate Class	Yes
Time / Place	(二)ABC / H571	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
<ol style="list-style-type: none"><li>1. Feasibility Study<ol style="list-style-type: none"><li>(1) Feasibility study</li><li>(2) Bench scale and pilot studies</li></ol></li><li>2. Engineering Planning/Basic Design<ol style="list-style-type: none"><li>(1) Water source quality, and drinking water quality</li><li>(2) Treatment process selection and design criteria</li><li>(3) Plant layout and basic design</li></ol></li><li>3. Coagulation<ol style="list-style-type: none"><li>(1) Purpose, consideration, type, and design criteria</li><li>(2) Example design calculations</li></ol></li><li>4. Flocculation<ol style="list-style-type: none"><li>(1) Purpose, consideration, type, and design criteria</li><li>(2) Example design calculations</li></ol></li><li>5. Sedimentation<ol style="list-style-type: none"><li>(1) Purpose, consideration, type, and design criteria</li><li>(2) Example design calculations</li></ol></li><li>6. Filtration<ol style="list-style-type: none"><li>(1) Purpose, consideration, type, and design criteria</li><li>(2) Example design calculations</li></ol></li></ol>

Prerequisite
water treatment engineering or environmental engineering, fluid mechanics or hydraulics