

97-2 Preliminary Syllabus, Da-Yeh Univ

| Information | | | |
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| Title | 分析化學 | Serial No. / ID | 0872 / EVI1020 |
| Dept. | 環境工程學系 | School System / Class | 大學日間部1年2班 |
| Lecturer | 余世宗 | Full or Part-time | 專任 |
| Required / Credit | Required / 3 | Graduate Class | NO |
| Time / Place | (一)8 / H607 (二)34 / H607 | Language | Chinese |

| Introduction |
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| <p>This course cover fundamental aspects of chemical analysis, it include basic chemical equilibrium theory applied to basic gravimetric and volumetric analyses. The specific topics to be taught include elementary stoichiometry, basic equilibrium and multiple equilibrium concepts; application statistics to data treatment; theory and practice of barious titrimetric methods of analysis.</p> <p>1. Provide students background principles that are important to analytical chemistry; 2. Students acquire the ability to apply the basic knowledge to acquire and interpret reliable experimental data in independent problem solving; 3. Students are able to apply computer program to perform computational and graphical tasks in analytical chemistry</p> |

| Outline |
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| <ol style="list-style-type: none"> 1. The Basic Approach to Chemical Equilibrium 2. Errors in Chemical Analyses 3. Statistical Analysis: Evaluating the Data 4. Principle and Application of Chemical Equilibria <ol style="list-style-type: none"> (1). Gravimetric Methods of Analysis (2). Electrolyte Effects (3). Equilibrium Calculation (4). Titrations (5). Neutrization Titrations (6). Titrating Polyfunctional Acids and Bases (7). Complexation and Precipitation Titrations 5. Electrochemical Methods <ol style="list-style-type: none"> (1). Electrochemistry (2). Applying Oxidation /reduction Titrations (3). Potentiometry |

Prerequisite

General chemistry