

朝陽科技大學 097學年度第1學期教學大綱
Basic Chemistry 基礎化學

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| 當期課號 | 1785 | Course Number | 1785 |
| 授課教師 | 陳齊聖 | Instructor | CHEN,CHEE SHAN |
| 中文課名 | 基礎化學 | Course Name | Basic Chemistry |
| 開課單位 | 應用化學系(四日)—B | Department | |
| 修習別 | 選修 | Required/Elective | Elective |
| 學分數 | 3 | Credits | 3 |
| 課程目標 | 使新進學生具備基礎數理能力，奠定其未來四年專業課程之學習效果。 | Objectives | This course is aimed to enhance freshmen's fundamental ability in high school mathematics. Course content contains several review topics regarding 1.The properties of numbers and their applications, 2. Logarithmic and Exponential functions, 3. Trigonometric functions, 4. Vectors, 5. Plane analytic geometry, 6. Matrix and solution of algebraic equations, and certain optional themes. |
| 教材 | General Chemistry by Raymond Chang 4th Ed. 乙丙級化學化工執照考古題 | Teaching Materials | General Chemistry by Raymond Chang 4th Ed. |
| 成績評量方式 | 期中考及期末考 | Grading | mid-term and final exams. |
| 教師網頁 | - | | |
| 教學內容 | 將依下列各章節之內容做比較淺顯之教導與說明： 一、化學簡介：學習基本的理論及定義。 二、原子、分子與離子。 三、當量化學。 四、水溶液反應。 五、氣體反應。 六、化學反應之能量關係。 七、原子之電子結構。 八、元素週期表。 九、化學鍵(一)：共價鍵。 十、化學鍵(二)：分子形狀與混成化軌道。 十一、乙丙級化學化工執照考試題目講解。 | Syllabus | The following chapters are taught at more basic level: 1. Introduction of basic chemistry. 2. Atoms, Molecules and Ions. 3. Stoichiometry. 4. Reactions in Aqueous Solutions. 5. Gases. 6. Energy Relationships in Chemical Reactions. 7. The Electronic Structure of Atoms. 8. The periodic Table. 9. Chemical Bonding I: The Covalent Bond. 10. Chemical Bonding II: Molecular Geometry and Hybridization of Atomic Orbitals. 11. Review the problems of National tests for chemistry and chemical engineering. |

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