

朝陽科技大學 095學年度第1學期教學大綱
Behavior of Reinforced Concrete member 鋼筋混凝土構件行為學

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| 當期課號 | 7132 | Course Number | 7132 |
| 授課教師 | 干裕成 | Instructor | KAN,YU CHENG |
| 中文課名 | 鋼筋混凝土構件行為學 | Course Name | Behavior of Reinforced Concrete member |
| 開課單位 | 營建工程系碩士班一A | Department | |
| 修習別 | 選修 | Required/Elective | Elective |
| 學分數 | 3 | Credits | 3 |
| 課程目標 | 本課程探討進階RC理論及構件受力後之行爲，內容包括變斷面矩形樑之分析；樑之極限強度分析，包括：a. 撓曲與裂縫 b.極限設計及彎矩再分配 c.握裹應力 d.破壞力學 e.扭矩；版降服線理論；特殊專題討論 | Objectives | The objective of this course is to teach the students about the influence of soil composition on its behavior, and let the students understand how to apply what they learned in soil behavior to general engineering practice. Topic covered in this course including: bonding, crystal structure, and surface characteristics; soil mineralogy; soil formation and soil fabric; clay-water electrolyte system; soil composition and engineering properties. |
| 教材 | 鋼筋混凝土工程設計(12th edition) | Teaching Materials | Design of Concrete Structures (12th edition) by Arthur H. Nilson |
| 成績評量方式 | 平時考(50%)、期末考(30%)、作業(20%) | Grading | Quiz(50%), Final Exam(30%), Homework(20%) |
| 教師網頁 | - | | |
| 教學內容 | 本課程探討進階RC理論及構件受力後之行爲，內容包括變斷面矩形樑之分析；樑之極限強度分析，包括：a. 撓曲與裂縫 b.極限設計及彎矩再分配 c.握裹應力 d.破壞力學 e.扭矩；版降服線理論；特殊專題討論 | Syllabus | The course is to teach the students about the advanced reinforced concrete behavior. The topics include RC element with a taped rectangular cross section, ultimate strength design including flexural analysis, USD and moment redistribution, bond analysis, fracture mechanics, torsion, yielding theory and special topics. |

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