# 朝陽科技大學 091學年度第1學期教學大綱
# Structural Analysis(II) 結構學(一)

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| 當期課號 | 1060 | Course Number | 1060 |
| 授課教師 | 金文森 | Instructor | KING,WON SUN |
| 中文課名 | 結構學(一) | Course Name | Structural Analysis(II) |
| 開課單位 | 營建工程系(四日)二B | Department | |
| 修習別 | 必修 | Required/Elective | Required |
| 學分數 | 3 | Credits | 3 |
| 課程目標 | 本課程在探討結構分析理論，根據靜定或靜不定結構體所受之外力，計算其結構物之支承反力、桿件所受之內力與結構之變位。內容包含結構之穩定、靜定樑、桁架、鋼架與合成結構之分析、 結構之影響線與彈性變形、諧合變位法分析靜不定結構等。 | Objectives | Analysis for member forces and deflections of statically determinate and indeterminate structures, including trusses, beams, and frames. Classification of structural design, equation of equilibrium. Stability and determinacy of structures. Analysis of statically determinate beams and trusses. Analysis of statically determinate rigid frames and composite structures. Influence lines of statically determinate structures. Development and use of theorems of moment area method, conjugate beam method, method of virtual work. Analysis of statically indeterminate beams, trusses, and rigid frames by the method of consistent deformations. |
| 教材 | 1.課堂黑板推導講解2.平時給予學生作業3.期中考試一次4.期末考試一次。 | Teaching Materials | 1.To explain the contents on the blackboard<br>2.To give some homeworks<br>3.To give a mid-term examination<br>4.To give a final examination. |
| 成績評量方式 | 期中考(30%)、期末考(40%)、其他(30%) | Grading | Mid-term examination 30%, Final examination 40%, the others 30% |
| 教師網頁 | | | |
| 教學內容 | 本課程在於介紹結構學的基本理論，訓練學生根據結構理論，以手算方式(最後配合電腦軟體)，進行營建結構的分析計算。1.結構學的基本理論2.結構桿件分析3. 電腦程式操作與運用 | Syllabus | The basic theory of structures is introduced in this course. Students should learn how to analyze the construction structures by hand-calculation or computer programs according to the theory of structures. There are three topics listed below.<br>1.Basic theory of structures.<br>2.Analysis of structural members. 3. Computer program analysis. |

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