# 朝陽科技大學 092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** | 1044 | **Course Number** | 1044 |
| **授課教師** | 王淑娟 | **Instructor** | WANG,SHU CHUAN |
| **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** | 課堂授課及作業 | **Teaching Materials** | notes and homeworks |
| **成績評量方式** | 期中考 20%,<br>期末考 20%,<br>作業及小考 50%,<br>平時成績 10% | **Grading** | mid-term exams.: 20%<br>final exam: 20%<br>homework and quiz:50%<br>Learing altitude:10% |
| **教師網頁** | | | |
| **教學內容** | 本課程在介紹結構系統之基本概念及一般結構分析之計算方法。內容包括根據結構系統所受之外力，計算其支承反力、桿件內力及對應之變形等。 | **Syllabus** | It provides students with knowledge of structural systems and their associated structural analysis methods for computing support reactions, member forces and the corresponding deflections. |

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