# 朝陽科技大學 095學年度第2學期教學大綱
# Mechanics of Material 材料力學

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| **當期課號** | 1414 | **Course Number** | 1414 |
| **授課教師** | 金文森 | **Instructor** | KING,WON SUN |
| **中文課名** | 材料力學 | **Course Name** | Mechanics of Material |
| **開課單位** | 營建工程系(四日)一A | **Department** | |
| **修習別** | 必修 | **Required/Elective** | Required |
| **學分數** | 3 | **Credits** | 3 |
| **課程目標** | 材料力學爲土木工程之重要基礎學科，舉凡土壤力學、鋼筋混凝土學、結構學.....等，均需具備良好的材料力學觀念，本課程旨在建立營建系學生所需具備之材料力學基礎，主要包括拉力、壓力、扭力、剪力、彎曲力矩、應力、應變、撓度及柱等。 | **Objectives** | Mechanics of materials is a basic subject in construction engineering. This course provides an opportunity to accomplish two things: first, to teach students a basic engineering subject and, second, to develop their analytical and problem-solving abilities. The main topics of this course include the analysis and design of structure members subjected to axial loads, torsion, shear and bending, as well as such fundamental concepts as stress, strain, elastic and inelastic behavior. Other topics of general interest are the transformations of stress and strain, deflection of beams and behavior of columns, and so on. |
| **教材** | 「材料力學」， R. C. Hibbeler 原著，第6版，高立書局<br>吳黎民 譯 | **Teaching Materials** | |
| **成績評量方式** | 一次期中考(25%)、一次期末考(25%)、平時測驗(35%)、作業(5%)、學習態度(10%) | **Grading** | Mid-Term Exam.(25%),Final Exam.(25%),Test(35%),Homework(5%),Learning Attitudes(10%) |
| **教師網頁** | _ | | |
| **教學內容** | 1. 拉力、壓力、剪力<br>2.軸向載重、扭力<br>3.彎曲力矩<br>4.樑中應力<br>5.應力及應變分析<br>6.平面應力<br>7.柱<br>8.樑之撓度 | **Syllabus** | 1.Tensile force, compressive force, shear force<br>2.axial force, torsional force<br>3.bending moment<br>4.stress in beams<br>5.stress and strain analysis<br>6.plain stress<br>7.column<br>8.deflection of beam |

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