# 朝陽科技大學 096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 | 1456 | Course Number | 1456 |
| 授課教師 | 林基源 | Instructor | LIN,JI YUAN |
| 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」， Gere 原著，第五版，東華書局<br>林震、劉興華、蘇金佳譯(上、下冊) | Teaching Materials | 「Mechanics of Materials」,5th edition, James M. Gere,新月圖書，台北，(英文版) |
| 成績評量方式 | 1.作業若干次（25分）<br>2.平時若干次（25分）<br>3.期中考與期末考（25分*2=50分）<br>4.上課精神與出席率（-10分~+10分） | Grading | 1.Homeworks：25%<br>2.Ordinarily exams：25%<br>3.Mid & final exams：25%*2=50%<br>4.Ordinarily achievement：-10%～+10% |
| 教師網頁 | | | |
| 教學內容 | 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。<br>拉力、壓力、剪力、扭力、彎曲力矩、應力、應變、撓度及柱等。 | Syllabus | Mechanics of materials is a basic engineering subject that must be understood by anyone concerned with the strength and physical performance of structure, whether those structures are man-made or natural. The subject matter includes such fundamental concepts as stresses and strains, deformations and displacements, elasticity and inelasticity, strain energy, and load-carrying capacity. These are the concepts that underlie the design and analysis of a huge variety of mechanical and structural systems. |

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