

材料力學

114-2 開課

收藏

加入預選

流水號
41690

課號
ME2003

課程識別碼
502 21800

班次 01

3 學分

必修 ▼
機械工程學系 / 工學院院學士學位

王建凱 ▼

二 3, 4 / 五 2

機械113

2 類

修課總人數 55 人
本校 55 人

2 個領域專長 ▼

英文授課

[NTU COOL](#)

[核心能力與課程規劃關聯圖](#)

目 備註

機械系 本課程以英語授課。

工學院院學士 本課程以英語授課。院學士核心必修-甲組、乙組

⚠ 修課限制

限本系所學生(含輔系、雙修生)

↗ 本校選課狀況

已選上	剩餘名額	已登記
86 / 55	0	0

目 課程概述

Deformation static analysis of deformable solids; Deformation, stress, and strain; Mechanical properties of materials (stress-strain-temperature relationship); Introduction to failure modes; Analysis of one-dimensional slender elements: axial loading of rods, torsion of shafts, bending of beams, buckling of columns.

🕒 課程目標

Graduates should have a clear understanding of or possess the following abilities:

1. Understanding of stress and strain.
2. Characteristics of linear elastic materials.
3. Analysis of stress, strain, and deformation in one-dimensional elements (rods, shafts, beams).
4. Analysis and design of simple structures.

☰ 課程要求

1. Absence from the exam without a valid reason will not be eligible for a makeup exam.
2. Attendance will not be taken in class; attendees are expected to maintain good classroom order.
3. Regarding flexible teaching, please follow the supplementary materials provided for sequential learning.

🕒 預期每週課前或/與課後學習時數

3 hours

Office Hour

Office Hours by appointment through e-mail.

Teaching assistant: Ms. Li-Ting Wang (王俐婷)

E-mail address: r14522509@ntu.edu.tw

Teaching assistant: Mr. Yu-Chen Kuo (郭玉成)

E-mail address: r14522541@ntu.edu.tw

*此 Office Hour 需要提前預約

指定閱讀

1. J. M. Gere and B. J. Goodno, "Mechanics of Materials," 9th Edition.
 2. J. M. Gere and B. J. Goodno, "Mechanics of Materials," Brief Edition. (This is a user-friendly text giving complete discussions on essential materials of this course.)
-

參考書目

1. F. P. Beer, E. R. Johnston, and J. T. DeWolf, "Mechanics of Materials," 7th Edition in SI units.
 2. S. H. Crandall, N. C. Dahl, and T. J. Lardner, "An Introduction to the mechanics of solids," 2nd Edition in SI units.
-

評量方式

46% Quiz

Including two Quizzes, scheduled approximately in the fourth and twelfth weeks of the course, each accounting for 23% of the semester grade.

23% Midterm Exam

The timing will be determined according to the school calendar, approximately in the eighth week of the course.

23% Final Exam

The timing will be determined according to the school calendar, approximately in the sixteenth week of the course.

8% Regular Performance

Evaluated based on your regular performance in the semester and subject to possible adjustments to the overall semester grade based on the entire class's performance.

1. 本校尚無訂定 A+ 比例上限。
 2. 本校採用等第制評定成績，學生成績評量辦法中的百分制分數區間與單科成績對照表僅供參考，授課教師可依等第定義調整分數區間。詳見 [學習評量專區](#)。
-

 針對學生困難提供學生調整方式

 補課資訊

課程進度

- | | |
|--------|--|
| 第 1 週 | Introduction |
| 第 2 週 | Tension, Compression, and Shear |
| 第 3 週 | Axially Loaded Members |
| 第 4 週 | Quiz I & Torsion |
| 第 5 週 | Shear Forces and Bending Moments - I |
| 第 6 週 | Shear Forces and Bending Moments - II |
| 第 7 週 | Stresses in Beams |
| 第 8 週 | Midterm Exam & Analysis of Stress and Strain - I |
| 第 9 週 | Analysis of Stress and Strain - II |
| 第 10 週 | Applications of Plane Stress - I |
| 第 11 週 | Applications of Plane Stress - II |
| 第 12 週 | Quiz II & Deflections of Beams - I |
| 第 13 週 | Deflections of Beams - II |
| 第 14 週 | Columns - I |
| 第 15 週 | Columns - II |
| 第 16 週 | Final Exam |
-

特別贊助 |  華南銀行
HUA NAN BANK

臺大課程網

[國立臺灣大學首頁](#) | [教務處首頁](#)

Copyright © 2025 國立臺灣大學教務處 版權所有 v3.2.8

[用戶協議](#) | [隱私權保護政策](#)